

for facilities, infrastructure, and environment

#### A/E/C CADD Standard

Appendix D

The A/E/C CADD Standard is compliant with Version 2.0 of the U.S. National CAD Standard.

The A/E/C CADD Standard contains supplemental materials and Dob specific requirements not addressed in the U.S. National CAD Standard.

Release 2.0

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## A/E/C CADD Standard

Main Text and Appendices A, B, and C Appendix D

Release 2.0

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# Appendix D A/E/C CADD Symbology

This appendix provides the A/E/C CADD	S0016B - Scale 1/16" = 1'-0"	D1-10
Symbology as follows:	S0016G - Scale 1/16" = 1'-0"	
by moores, and some way	S0018B - Scale 1/8" = 1'-0"	
<b>General Drafting</b>	S0018G - Scale 1/8" = 1'-0"	
General Draiting	S00200 - Scale 1: 200	D1-10
	S0020B - Scale 1" = 20'-0"	D1-10
Lines	S0020G - Scale 1" = 20'-0"	D1-10
D12	S0030B - Scale 1" = 30'-0"	
DEMOLN – Demolition LineD1-3	S0030G - Scale 1" = 30'-0"	
	S0034B - Scale 3/4" = 1'-0"	D1-11
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PREAM P. LT' Combal D17	S0040B - Scale 1" = 40'-0"	D1-11
BREAK – Break Line Symbol	S0040G - Scale 1" = 40'-0"	D1-11
CNTLIN – Centerline SymbolD1-7	S00500 - Scale 1:500	
COLLIN – Column Line/	S0050B - Scale 1" = 50'-0"	D1-11
Grid IndicatorD1-7 DBLARR – Double Arrow TerminatorD1-7	S0050G - Scale 1" = 50'-0"	D1-11
DTLIND – Detail Indicator	S0060B - Scale 1" = 60'-0"	
KEYIND – Detail IndicatorD1-7	S0060G - Scale 1" = 60'-0"	
MAGNOR – Magnetic North ArrowD1-7	S01000 - Scale 1: 1000	D1-12
MATIND – Match Line IndicatorD1-7	S0100B – Scale 1" = 100'-0"	
NORIND – North IndicatorD1-7	S0100G - Scale 1" = 100'-0"	
NOTIND – Note Indicator	S0200B - Scale 1" = 200'-0"	
REVIND – Revision IndicatorD1-8	S0200G - Scale 1" = 200'-0"	
S00005 – Scale 1 : 5	S0400B - Scale 1" = 400'-0"	
S00010 – Scale 1: 10	S0400G - Scale 1" = 400'-0"	
S0001B – Scale 1' = 1'-0"	S05000 – Scale 1:5000	D1-12
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S0003B - Scale 3" = 1'-0"D1-8	S06000 - Scale 1 : 6000	DI-13
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S0014G - Scale 1/4" = 1'-0"D1-9	SECIN2 - Section Indicator	D1-1
$500140 - 50016 1/4 - 1.20 \dots D1-9$ 50015R - 50016 1-1/2" = 1.20" D1-9	SECIN3 - Section Indicator	DI-1

S0015G - Scale 1-1/2" = 1'-0".....D1-9

#### **Hazardous Materials**

#### Survey/Mapping

Lines	Lines
HAZMAT – Hazardous Material	16THLN - Sixteenth Line
TransportD2-3	BARDIT - Ditch BarrierD3-3
	BARDTB - Ditch and Berm Barrier D3-3
Symbols	BARGEN - Generic Security Barrier D3-3
	BARMAS – Security Masonry BarrierD3-3
AIRQST – Air Quality Monitoring	CMP12 – CMP 12 in. Diameter
StationD2-7	Linear Pattern
AIRSMP – Air Sample LocationD2-7	CMPU12 - CMP up to 12 in. Diameter
BIOSMP – Biological Sample Location. D2-7	Linear Pattern
EGDECN – Equipment DecontaminationD2-7	COMARX – Existing Aerial
EGONST – Onsite Command PostD2-7	Communication Line
EGSITE – Site Information Center D2-7	COMUGX – Existing Underground
EGWASH - Washdown Water Tank D2-7	Communication Line
EHZMSA – Hazmat Storage Location D2-7	CONLMT – Construction LimitD3-4
EHZMSB – Hazmat Storage BuildingD2-7	CULVRT – Culvert PipeD3-4
EHZMSR – Hazmat Storage RoomD2-8	DITCH – Ditch Line
EHZMSV – Hazmat Storage VaultD2-8	EPARX – Existing Aerial Primary
EHZWSA - Hazwaste Storage Location D2-8	Electrical Line
EHZWSB – Hazwaste Storage Building D2-8	EPUGX - Existing Underground Primary
EHZWSR – Hazwaste Storage RoomD2-8	Electrical Line
EHZWSV – Hazwaste Storage Vault D2-8	ESARX – Existing Aerial Secondary
EMGSHW – Emergency ShowerD2-8	Electrical Line
EPOLLS – Pollution Source Site D2-8	ESUGX - Existing Underground Secondary
EYEWAS – Emergency EyewashD2-8	Electrical Line
GWTQST – Groundwater Quality	EUDUCX Existing Underground
Monitoring StationD2-9	DuctbankD3-4
LANGAS - Landfill Gas Monitor Probe D2-9	FENCE – FenceD3-4
MAGLOC – Magnetometer Det. Locat D2-9	FIBOPT – Fiber Optics Line
MATSMP - Solid Material Sample	FIRE – Fire Protection Water Supply D3-5
LocationD2-9	FUELOR – Fuel Oil Return
PRRLOC – Potential Release Location D2-9	FUELOS – Fuel Oil Supply
RESTR – Restricted Access	FUELOV - Fuel Oil Tank Vent
SEDSMP – Sediment Sample Location D2-9	GUARD – Guardrail
SOLGAS – Soil Gas Monitoring Probe D2-9	INDXDC - Index Depth Contour D3-5
SOLSMP - Soil Sample LocationD2-9	IWASTE – Industrial Waste D3-5
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SPLTNK – Spill Containment TankD2-10	MINRDC – Minor Depth ContourD3-6
SURSMP – Surface Water Sample Loc D2-10	NONPOT – Nonpotable WaterD3-6
SWTQST – Surface Water Quality	NTGASX – Exist. Natural Gas Piping D3-6
Monitoring StationD2-10	PROJBL - Project Boundary LineD3-6
WASSMP – Waste Sample Location D2-10	PROPL – Property Line

RTOFWY – Right of Way......D3-6

WATSMP – Groundwater Sample Loc D2-10

SSWAFX - Existing Sanitary SewerD3-6	BCN5 - General Beacon	D3-17
STRAFX – Existing Storm DrainD3-6	BCNBY1 - Buoyant Beacon	D3-17
TREEL – Tree Line	BCNBY2 - Buoyant Beacon	D3-18
WATRX – Existing Water LineD3-7	BCNLT1 - Lighted Beacon	D3-18
William Zimbung was	BCNLT2 - Lighted Beacon	D3-18
Patterns	BCNLT3 - Lighted Beacon	D3-18
i diterio	BCNRES - Resilient Beacon	D3-18
CONC - Concrete	BCNTG1 - Telegraphic Mooring	
CONCST – Concrete, StoneD3-11	Beacon	D3-18
EEARTH – Existing EarthD3-11	BCNTG2 - Telegraphic Mooring	
EROCK – Existing RockD3-11	Beacon	D3-18
FILLSC – Fill Section	BCNTP1 - Telephonic Mooring	
GRAVEL – GravelD3-11	Beacon	D3-18
GROUT – Grout	BCNTP2 - Telephonic Mooring	
LSWAMP – Large SwampD3-11	Beacon	D3-18
POROUS – PorousD3-11	BCNTR1 - Triangular Beacon	D3-19
RIPRAP – RiprapD3-12	BCNTR2 - Triangular Beacon	D3-19
Idi Idi	BM – Bench Mark	D3-19
	BMALT - Bench Mark Alternate	D3-19
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LightbarD3-15	BYBELB - Bell Barrel Buoy	D3-19
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LightbarD3-15	BYCHEC - Checkered Buoy	D3-20
AERO – Seaplane Anchorage BuoyD3-15	BYCOMP - Compass Adjustment	
AFBCN – Airfield Beacon	Buoy	D3-20
AIRFLD – Airfield Symbol	BYEXPL – Explosive Anchorage	
ANCHR1 – Anchorage Large Vessel D3-15	Buoy	D3-20
ANCHR2 – Anchorage Large Vessel D3-15	BYFISH - Fish Trap Buoy	D3-20
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ANCHR4 – Anchorage Small Vessel D3-15	BYGONP – Gong Pillar Buoy	D3-20
ANCHR5 – Anchorage Small Vessel D3-16	BYJUNC – Junction Buoy	D3-20
ANCHRO – Anchor Berth	BYPOS – Position of Buoy	D3-20
ARROW – Arrow Terminator	BYQUAR – Quarantine Buoy	D3-20
BAR1 – Barrel BuoyD3-16	BYWAV1 – Wave Actuated Bell	
BAR1C – Barrel Buoy, Indicate Color .D3-16	Buoy	D3-21
BAR2 – Barrel Buoy	BYWAV2 – Wave Actuated Bell	
BARD – Barrel Buoy, Diagonal Stripe. D3-16	Buoy	D3-21
BARLT1 – Barrel Buoy, LightedD3-16	BYWHIB – Whistle Barrel Buoy	D3-21
BARLT2 – Barrel Buoy, LightedD3-16	BYWHIP – Whistle Pillar Buoy	D3-21
BARMKR – Barrier MarkerD3-17	CABCNZ – Cable Crossing Zone	D3-21
BARV – Barrel Buoy, Vertical StripeD3-17	CABDIS – Disused Submarine Cable	D3-21
	CABLAN – Cable Landing Beacon	
BARVT – Barrel Buoy, Vertical Stripe, w/TopmarkD3-17	CABLE – Submarine Cable	D3-21
BCN1 – General BeaconD3-17	CABLE1 – Submarine Cable Area	D3-21
BCN1 – General Beacon	CABLE2 – Submarine Cable Area	
	CABPWR – Submarine Power Area	
BCN3 – General Beacon	CAIRN1 – Cairn	
BCN4 – General Beacon	CAIRNI – Cann	3.0 - 2-2.2
Appendix D A/E/C CADD Symbology		

CAIRN2 – Cairn	FIXPNT – Fixed Point	D3-26
CAIRN3 – Cairn	FLARRL - Flow Arrow Left in 0 Pt	D3-26
CAIRN4 – Cairn	FLARRR - Flow Arrow Right in 0 Pt.	D3-26
CAN1 – Can Buoy	FLDGAT - Flood Gate	
CAN2 – Can Buoy	FOG - Fog Signal	D3-27
CANWT – White Can Buoy	FOGBCN - Fog Signal Beacon	D3-27
w/TopmarkD3-22	FOGBY - Fog Signal Buoy	D3-27
CATBSN - Catch BasinD3-23	FOGLS - Fog Signal Light Ship	D3-27
CATBSR – Round Catch BasinD3-23	FOGLSM - Fog Signal Light Ship,	
CDHDR – Core Drill Hole DrilledD3-23	Manned	D3-27
CDHUDR – Core Drill Hole Undrilled.D3-23	FOMETR - Fuel Oil Meter	D3-27
CGRES1 – Coast Guard Rescue	FOMHOL - Fuel Oil Manhole	D3-27
StationD3-23	FOVALT - Fuel Oil Vault	D3-27
CGRES2 – Coast Guard Rescue	GREASE - Grease Trap	D3-28
Station	GRITCH - Grit Chamber	
CGRES3 - Coast Guard Rescue	GSMETR – Gas Meter	D3-28
Station	GSMHOL - Gas Manhole	
CKTID - Circuit ID SymbolD3-23	GSPLNT - Gas Plant	
CLNOUT – Cleanout	GSRECR – Gas Receiver	
CMHLX – Existing Communication	GSTRAP – Gas Trap	
Manhole	GSVALT – Gas Valve Vault	
CNR90 – Corner Solid 90	HEADWL – Headwall	
CNRNF - Corner Not Found	HLL - Hoverlane Light	
CNRSF – Corner Solid FlatD3-24	HLLL - Hoverlane Limit Light	
CNTLIN – Centerline Symbol	HORCPT – Horizontal Control Point	
COAST1 - Coast Guard StationD3-24	HOVCPT - Horiz. Vert. Control Point	D3-29
COAST2 - Coast Guard StationD3-24	HPIL - Helipad Inset Light	
COAST3 - Coast Guard StationD3-24	HPPLEL - Elevated Helipad Perimeter	
COAST4 – Coast Guard StationD3-24	Light	
CULVEE - Culvert End SymbolD3-25	HPPLSF - Semiflush Helipad Perimeter	
DBID – Ductbank ID Symbol	Light	
DBLARR – Double Arrow Terminator D3-25	HUREYE – Hurricane Eye	
DGUYX – Down Guy	HYDRNT – Hydrant	D3-29
DISPLT – Disused PlatformD3-25	INSHWY – Interstate Hwy. Symbol	
DNGPB – Lighted Danger Pillar Buoy. D3-25	INSTBY - Oil Gas Installation Buoy	
DNGRK – Danger Underwater Rocks	IWMETR - Industrial Waste Water	
Depth UnknownD3-25	Meter	D3-30
DNGRK1 – Danger Underwater Rocks	IWMHOL - Industrial Waste Manhole	D3-30
Depth UnknownD3-25	JETTY - Jetty	D3-30
DNGSB - Lighted Danger Spar BuoyD3-25	JNBX – Junction Box	
DOLPHN – DolphinD3-26	KELP - Kelp/Seaweed	D3-30
DSTMKR – Runway Distance Marker . D3-26	LANBY1 - Lanby Superbuoy Navaid	D3-30
DSWTCH – Distribution Switch D3-26	LANBY2 - Lanby Superbuoy Navaid	
DTHL – Displace Threshold Light D3-26	LATBCN - Lattice Beacon	D3-31
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Handhole	LIFEM1 – Lifeboat at Mooring	D3-31
EMHLX – Existing Electrical	LIFEM2 - Lifeboat at Mooring	D3-31
Manhole	LIMIT - Limit of Safety Zone	D3-31

LITSV1 - Floating Light	D3-31	NUN2 – Nun BuoyD3-	36
LITSV2 – Floating Light	D3-31	NUNBT – Black Nun Buoy	
LOOKTR - Lookout Watch Station	on D3-31	w/TopmarkD3-	36
LTART – Articulated Light	D3-31	NUNWT - White Nun Buoy	
LTBEAC - Lighted Beacon	D3-32	w/TopmarkD3-	36
LTBY - Lighted Buoy	D3-32	OBS – ObstructionD3-	36
LTBYBB - Lighted Black Barrel		OBSSPT - Observation SpotD3-	36
Buoy	D3-32	OBSTRL - Obstruction LightD3-	36
LTFLD – Floodlight	D3-32	ODAS - ODAS Data Collection Buoy. D3-	36
LTFLT – Float Light	D3-32	OUTB - Outfall Marking BuoyD3-	.37
LTFLT1 - Float Light IALA	D3-32	PAPI – PAPI Light UnitD3-	.37
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LTPLX – Existing Light Pole	D3-33	PILV - Vertical Stripe Pillar BuoyD3-	-38
LTSHP1 – Lighted Vessel Lights	hin D3-33	PILVT - Vertical Stripe Pillar Buoy	
LTSHP2 – Lighted Vessel Lights		w/TopmarkD3-	-38
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LTSTRX – Existing Street Light	тр	PIPE - Water Sewer Outfall IntakeD3-	-38
Bracket	D3-34	PIPE1 - Oil Gas PipelineD3	-38
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MARKROD - Green Day Marker	D3-34	PLAT1 - Prod Platform Oil DerrickD3	
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Buoy	D3-35	RADAR3 - Floating Radar BeaconD3	-40
MWEST – Lighted West Marker		RADAR4 – Floating Radar BeaconD3	-40
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NOTICE - Notice Board	D3-36	RADRF1 – Radar Reflector or Feature D3	
NUN1 – Nun Buoy		RADRF2 – Radar Reflector or Feature D3	
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RANGEX – Range ExtensionD3-41	SNMETR – Sanitary Meter	D3-45
REEF - Coral Reef, Large IconD3-41	SNMHOL - Sanitary Manhole	D3-45
REEF1 - Coral Reef, Small IconD3-41	SNPVSL - Sanitary Pressure Vessel	D3-46
REFUG1 – Refuge BeaconD3-41	SNVALT - Sanitary Valve Vault	D3-46
REFUG2 - Refuge BeaconD3-41	SPAR1 - Spar Buoy Spindle Buoy	D3-46
REIL – Reil Light UnitD3-41	SPAR2 - Spar Buoy Spindle Buoy	D3-46
RESCUE – Rescue StationD3-42	SPARB - Black Spar Buoy	D3-46
RESPLT – Observation Research	SPARBT – Black Spar Buoy	
PlatformD3-42	w/Topmark	D3-46
RGVALV – Regulator ValveD3-42	SPARWT – White Spar Buoy	
RSTAR – Range StarD3-42	w/Topmark	D3-46
RVMMOP – Open River Mile Marker D3-42	SPH1 - Spherical Buoy	
RVMMSO – Solid River Mile Marker .D3-42	SPH2 - Spherical Buoy	
RWCLL – Runway Centerline Light D3-42	SPHD - Diagonal Stripe Spherical	
RWEL – Runway End LightD3-42	Buoy	D3-47
RWLEL - Elevated Runway	SPHV - Vertical Stripe Spherical	
Edge LightD3-42	Buoy	D3-47
RWLSF - Semiflush Runway	SPHW - White Spherical Buoy	D3-47
Edge Light	SPILE - Submerged Piling	
SAFE1 – Lighted Safe Water MarkD3-43	SPILE1 - Submerged Piles	
SAFE2 – Lighted Safe Water MarkD3-43	SPILES - Submerged Piles	
SAFE3 – Lighted Safe Water MarkD3-43	SPILEX - Submerged Pile w/Position	D3-47
SCNRH – Section Corner Hatched D3-43	SPOST - Submerged Post	D3-47
SCNRO – Section Corner OpenD3-43	SPOSTX - Submerged Post	
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SECCUT - Typical Section CutD3-43	SSLSTA – Sanitary Sewer Lift Station	D3-48
SFL – Sequenced Flasher Light	STAKE - Stake Perch	D3-48
SHRUBC – Shrub, ConiferousD3-44	STAKEX – Stake w/Position	D3-48
SIGBRG – Bridge Light Inc Traffic D3-44	STHWY – State Highway Symbol	D3-48
SIGN – Sign	STMPIT – Steam Pit	.D3-48
SIGNWS - National Weather Service	STUMPS – Submerged Stumps	
Station	SUBSTA – Substation	
SIGSHO – Sub Signal Connect Shore D3-44	SUPER – Super Buoy	
SIGST1 – General Signal StationD3-44	SUWEL2 - Suspended Well, Depth	
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SLARRL - Slope Arrow w/ Enter	SWAMP – Swamp	D3-49
Data FieldD3-45	SWELB1 - Submerged Well w/Buoy	.D3-49
SLARRR – Slope Arrow w/ Enter	SWELB2 – Submerged Well w/Buoy	.D3-49
Data FieldD3-45	SWELL5 - Submerged Prod Well	
SLLX – Existing Street Light	SWPADX – Existing Switch Pad	
LuminaireD3-45	TDZL - Touchdown Zone Light	.D3-49
SLREG – Constant Current	TELBBB - Black Telegraphic Barrel	
Transformer	Buoy	.D3-50

THL - Threshold Light	D3-50	UTPLX - Existing Pole	.D3-54
TIDEG – Tide Gage	D3-50	VCDATA – Vertical Curve Data	.D3-54
TIDSTF – Tide Staff	D3-50	VERCPT - Vertical Control Point	
TIRETR – Tire Treddle	D3-50	WAHHOL – Water Handhole	
TIKETK - THE HEUGIE	D3-50	WAMETR – Water Meter	.D3-54
TNKBG - Tank, Below Ground	.D3-30	WAPLNT – Water Plant	
TNKHAG – Tank, Horizontal	D2 50	WASOFT – Water Softener	.D3-54
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TOWBT2 – Black Beacon Tower		WRKDNG - Wreck, Danger Depth	D2 55
w/Topmark	.D3-51	Unknown	.D3-33
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w/Topmark	D3-51		
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TREEC - Tree, Coniferous	D3-52	<u> </u>	
TREED - Tree, Deciduous	D3-52	Patterns	
TREEG - Tree, Generic	D3-52	Patterns	
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TRIPNT – Triangulation Point	D3-52	AGGLOM - Agglomerate or Flow Breccia	D4_3
TRVALT – Transformer Vault	D3-52	ANDES – Andesite	
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TSHEAD – Traffic Signal Head	D3-52	BASALT – Basalt	D4 2
TSPBX – Traffic Signal Pullbox		BRECCA – Breccia	D4-3
TSPHS – Traffic Signal		CHALK - Chalk or Marl	
Phase No., Thru	D3_53	CHERT – Chert	D4-3
TCDIT Treffic Signal	<b>D</b> 3-33	CLAYST - Claystone or Siltstone	D4-3
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TWELEL – Elevated Taxiway End	D2 52	DIORIT - Diorite	
Light	D3-33	DOLOM - Dolomite	
TWELSF - Semiflush Taxiway End	D2 52	GABBRO – Gabbro	
Light	D3-53	GNEISS - Gneiss	D4-4
TWGSGN - Taxiway Guidance Sign.	<b>D3-</b> 33	GRANIT - Granite	
TWLEL - Elevated Taxiway Edge	D0 70	GRAYWC - Graywacke	D4-4
Light	D3-53	HFRACT - Highly Fractured	D4-5
TWLSF - Semiflush Taxiway Edge		LIMEST – Limestone	D4-5
Light		MARBL1 – Marble	
USHWY – US Highway Symbol	D3-54		_
Appendix D A/E/C CADD Symbology			İX

MSJNT – Moderately Spaced JointsD4-5	CUDRTT – Consolidated-Undrained
QUARTZ – QuartziteD4-5	Triaxial TestD4-12
RHYOLT – RhyoliteD4-5	DSCHOL - Drive Sampled (SPT)
SANDST – SandstoneD4-5	and CoredD4-12
SCHIST – SchistD4-5	DSHOL - Drive Sample (SPT) HoleD4-12
SHELL – Shells	FBLCK1 – Fault Block Movement 1D4-12
SLATE – SlateD4-6	FBLCK2 - Fault Block Movement 2D4-12
SOAPST - Soapstone or SerpentineD4-6	HAHNUM – Hand Auger Hole
TUFF – Tuff or Tuff Breccia	NumberD4-12
USCS1 – USCS Soil SymbolD4-6	HANGF1 – High Angle Fault 1D4-12
USCS10 – OL, Organic Clay or Silt,	HANGF2 – High Angle Fault 2D4-13
Low Liquid LimitD4-6	HDHNUM – Hand Dug Hole Number .D4-13
	HEXAGN – Hexagon Symbol
USCS11 – Pt, Peat	
USCS12 – SC, Clayey SandD4-6	HOLNUM – Hole Number, Elevation,
USCS13 – SM, Silty Sand	Offset
USCS14 – SP, Poorly Graded SandD4-6	HRZBED – Horizontal Beds
USCS15 – SW, Well Graded SandD4-7	MOISTC – Moisture ContentD4-13
USCS2 – CL, Lean Clay	NSAHOL – Nonsampled Area
USCS3 – GC, Clayey GravelD4-7	of HoleD4-13
USCS4 – GM, Silty GravelD4-7	OBSHOL – Piezometer or
USCS5 – GP, Poorly Graded Gravel D4-7	Observation HoleD4-13
USCS6 – GW, Well Graded Gravel D4-7	OPBLOG - Open Boring LogD4-13
USCS7 – MH, Inorganic Silt, High	PAHNUM – Power Auger Hole
Liquid LimitD4-7	Number
USCS8 – ML, Inorganic, Silt, Low	PIEZOM – PiezometerD4-14
Liquid LimitD4-7	PROPEX – Proposed Exploration D4-14
USCS9 - OH, Organic Clay or Silt,	PTHNUM Perc Test Hole NumberD4-14
High Liquid LimitD4-7	RDHNUM – Rotary Drill Hole
WOOD – Wood SymbolD4-8	NumberD4-14
WSJNT - Widely Spaced Joints D4-8	RSLASH - Refusal Slashes D4-14
ZONECL – Zones of Core Loss D4-8	SAMPLE – SampleD4-14
	SDIJNT - Strike Dip of Inclined Joint D4-14
Symbols	SQUARE - Square SymbolD4-14
•	STRKDP – Strike DipD4-15
ANCHOL - Angle Cored Hole	STRKVJ – Strike of Vertical Joint D4-15
(Arrow=Dir)D4-11	STRKVP - Strike w/Vertical DipD4-15
ANTICL – AnticlineD4-11	SYNCLN – Syncline
BHHNUM – Backhoe Hole Number D4-11	TRIANG - Triangle Symbol
BOLOGR – Boring Log RefusalD4-11	TSTHOL – Test Hole Symbol D4-15
CCHNUM – Concrete Core	UCONUD – Unconsolidated
Hole NumberD4-11	UndrainedD4-15
CDRDSH – Consolidated-Drained	UCONUT Unconsolidated-Undrained
Direct Shear	Triaxial Test
CONDRA – Consolidated DrainedD4-11	UDENIS – Undisturbed Denison
CONSOL – ConsolidationD4-11	or PushD4-15
CONTST – Consolidation TestD4-11	ULIMIT – Unsatisfactory LimitD4-16
CONUDR – Consolidated UndrainedD4-11	VCHOL – Vertical Core Hole
CPNHOL – Cone Penetrometer Hole D4-12	VHNUM – Vibracore Hole NumberD4-16

WASHBR - WashboredD4-16	FILTBD – Filtration Bed
WBHNUM - Wash Boring Hole	GRAVEL - GravelD5-9
NumberD4-16	LSWAMP - Large SwampD5-9
WLEVDL – Water Level Date LeftD4-16	POROUS – Porous
WTRLEV – Water LevelD4-16	RIPRAP – RiprapD5-9
WINDS Water 2010	
	Symbols
Civil	AIRFLD - Airfield SymbolD5-13
	ARRPT - Parking Turn Arrow
Lines	ARRSD - Straight Direction ArrowD5-13
	ARRST - Straight and Turn ArrowD5-13
BARDIT – Ditch Barrier	BREAK - Break Line SymbolD5-13
BARDTB - Ditch and Berm BarrierD5-3	BUOY – BuoyD5-13
BARGEN - Generic Security Barrier D5-3	CATBSN - Catch BasinD5-13
BARMAS - Security Masonry BarrierD5-3	CATBSR – Round Catch BasinD5-13
CONLMT - Construction LimitD5-3	CDHDR – Core Drill Hole DrilledD5-13
CULVRT - Culvert PipeD5-3	CDHUDR – Core Drill Hole Undrilled D5-14
DITCH – Ditch LineD5-3	CLNOUT – CleanoutD5-14
FENCE - Fence	CNR90 – Corner Solid 90
FIRE - Fire Protection Water Supply D5-3	CNRSF – Corner Solid Flat D5-14
FUELOR - Fuel Oil ReturnD5-4	CNTLIN – Centerline Symbol
FUELOS – Fuel Oil Supply	COGRAV – Center of Gravity Symbol D5-14
FUELOV - Fuel Oil Tank Vent	CULVEE – Culvert EndD5-14
GOVTKL - Government Taking LineD5-4	DBLARR – Double Arrow Terminator D5-14
GUARD - GuardrailD5-4	DRLHOL – Drill HoleD5-14
INDXDC - Index Depth ContourD5-4	FLARRL – Flow Arrow Left in 0 PtD5-15
IWASTE – Industrial WasteD5-4	FLARKL - Flow Arrow Left III 0 Ft D5-15
LIQPET – Liquid Petroleum GasD5-4	FLARRR – Flow Arrow Right in 0 Pt. D5-15
MINRDC – Minor Depth ContourD5-4	FOMETR – Fuel Oil Meter
NONPOT – Nonpotable WaterD5-5	FOMHOL – Fuel Oil Manhole
NTGASN – Natural Gas PipingD5-5	FOVALT – Fuel Oil Vault
NTGASX – Exist. Natural Gas PipingD5-5	GREASE – Grease Trap
PROJBL - Project Boundary LineD5-5	GRITCH - Grit Chamber
PROPL – Property LineD5-5	GSMETR – Gas MeterD5-15
RAILRD – Railroad	GSPLNT – Gas PlantD5-15
RTOFWY – Right of WayD5-5	GSRECR – Gas ReceiverD5-16
COMAR Comitem Courses D5-5	GSTRAP – Gas TrapD5-16
SSWAF – Sanitary Sewer	GSVALT - Gas Valve VaultD5-16
SSWAFX – Existing Sanitary SewerD5-5	HEADWL – HeadwallD5-16
STRAF – Storm Drain	HNDCAP - Handicap Chair SymbolD5-16
STRAFX – Existing Storm Drain	HORCPT – Horizontal Control PointD5-16
TREEL – Tree Line	HOVCPT - Horiz. Vert. Control Point D5-16
WATERL – Water Line	HUREYE – Hurricane EyeD5-16
WATRX – Existing Water LineD5-6	HYDRNT – HydrantD5-16
WWFBRC - Welded Wire FabricD5-6	INSHWY - Interstate Highway SymbolD5-17
	IWMETR – Industrial Waste
Patterns	Water MeterD5-17
	IWMHOL – Industrial Waste
CONCST – Concrete, StoneD5-9	Water Manhole
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JNBX – Junction BoxD5-17	Landscape
MONWEL – Monitoring WellD5-17	
PHOCPT – Photo Control PointD5-17	Lines
PIINFO – PI InformationD5-17	Lines
PIVALV – Post Indicator ValveD5-17	FENCE – Fence LineD6-3
PMPSTA – Pump StationD5-17	LAWNSP – Lawn Sprinkler SupplyD6-3
RGVALV – Regulator ValveD5-18	
RRSIGN – Rail SignalD5-18	TREEL – Tree Line
RRSWTC - Rail Switch	Occupato a la
SCNRH – Section Corner Hatched D5-18	Symbols
SCNRO - Section Corner OpenD5-18	CUDUDO Charl Conference DC 7
SDMHOL - Storm Drainage Manhole . D5-18	SHRUBC – Shrub, Coniferous
SHRUBC – Shrub, Coniferous	SHRUBD – Shrub, Deciduous
SHRUBD – Shrub, Deciduous	TREEC – Tree, Coniferous
SIGN – Sign	TREED – Tree, Deciduous
SNMHOL – Sanitary Manhole	TREEG – Tree, Generic D6-7
SNPVSL – Sanitary Pressure VesselD5-19	
SNVALT – Sanitary Valve VaultD5-19	
SPOTEL – Ground Spot ElevationD5-19	Structural
SPTANK – Septic Tank	
	Lines
STHWY – State Highway SymbolD5-19 STMPIT – Steam Pit	
	BERM – Berm
SWAMP – Swamp	CMP127 – CMP 127 mm x 25 mm D7-3
TIDEG – Tide Gage	CMP152 – CMP 152 mm x 51 mm D7-3
TIRETR – Tire Treddle	CMP38 – CMP 38 mm x 6 mm
TNKBG – Tank, Below Ground D5-20	CMP51 – CMP 51 mm x 13 mm
TNKHAG – Tank, Horizontal	CMP68 – CMP 68 mm x 13 mmD7-3
Above Ground	CMP76 – CMP 76 mm x 25 mm
TNKVAG – Tank, Vertical	DECKCR – Corrugated Metal DeckD7-3
Above Ground	DECKFL – Contigated Metal DeckD7-3  DECKFL – Metal Floor Deck
TRACR - Traffic Arm w/Card Reader.D5-20	DECKRF – Metal Roof Deck
TRAMS – Traffic Arm,	GROUND – Ground
Mechanical Swing	
TREEC - Tree, Coniferous	INTRLK – Interlocking Steel MembersD7-4
TREED - Tree, Deciduous	PS31 – PS31 Sheet Pile
TREEG – Tree, Generic	PS31H – PS31 Sheet Pile Hidden
USHWY – US Highway SymbolD5-21	PSA23 – PSA23 Sheet Pile
VCDATA – Vertical Curve DataD5-21	PSA23H – PSA23 Sheet Pile Hidden D7-4
VERCPT – Vertical Control PointD5-21	PZ22 – PZ22 Sheet Pile
WAHHOL – Water HandholeD5-21	PZ22H – PZ22 Sheet Pile HiddenD7-4
WAMETR – Water MeterD5-21	PZ27 – PZ27 Sheet Pile
WAPLNT – Water PlantD5-21	PZ27H – PZ27H Sheet Pile HiddenD7-5
WASOFT – Water SoftenerD5-21	PZ35 – PZ35 Sheet Pile
WAVALT – Water Valve VaultD5-21	PZ35H – PZ35 Sheet Pile HiddenD7-5
	PZ40 – PZ40 Sheet Pile
	PZ40H – PZ40 Sheet Pile HiddenD7-5
	REBR12 – Rebar at 12 Inch
	REBR18 – Rebar at 18 Inch

REBR6 - Rebar at 6 InchD7-5	ZC273 – PZ22 PZ27 L ConnectionD/-12
REBR9 – Rebar at 9 InchD7-6	ZC274 – PZ22 PZ27 L ConnectionD7-12
RIPPLN – Riprap Plan ViewD7-6	ZC275 - PZ22 PZ27 L ConnectionD7-12
ROCK - Rock	ZC276 - PZ22 PZ27 L ConnectionD7-12
SHORLN – Shore LineD7-6	ZC277 – PZ22 PZ27 L ConnectionD7-12
WWFBRC – Welded Wire FabricD7-6	ZC278 – PZ22 PZ27 L ConnectionD7-12
W WI DICC - Wolded Who I dollo	ZC279 – PZ22 PZ27 L ConnectionD7-12
Objects	ZC350 - PZ35 PZ40 L ConnectionD7-12
Objects	ZC351 – PZ35 PZ40 L ConnectionD7-13
4FRB - 4" Flat Ribbed WaterstopD7-9	ZC352 - PZ35 PZ40 L ConnectionD7-13
6FRBHD - 6" Flat Ribbed Waterstop,	ZC353 - PZ35 PZ40 L ConnectionD7-13
Heavy DutyD7-9	ZC354 – PZ35 PZ40 L ConnectionD7-13
6FRBLW – 6" Flat Ribbed Waterstop,	ZC355 – PZ35 PZ40 L ConnectionD7-13
Light WeightD7-9	ZC356 – PZ35 PZ40 L ConnectionD7-13
6RCBHD – 6"Ribbed Waterstop with	ZC357 – PZ35 PZ40 L ConnectionD7-13
	ZC358 – PZ35 PZ40 L ConnectionD7-13
Center Bulb, Heavy Duty	ZC359 – PZ35 PZ40 L ConnectionD7-13
6RCBLW – 6" Ribbed Waterstop with	ZT270 – PZ22 PZ27 T ConnectionD7-14
Center Bulb, Light Weight	ZT271 – PZ22 PZ27 T Connection D7-14
9FLBHD – 9" Flat Ribbed Waterstop	ZT350 – PZ35 PZ40 T Connection D7-14
Heavy Duty	ZT351 – PZ35 PZ40 T ConnectionD7-14
9FRBLW – 9" Flat Ribbed Waterstop	ZX270 – PZ22 PZ27 Cross ConnectionD7-14
Light Weight	ZX350 – PZ35 PZ40 Cross ConnectionD7-14
9RCBHD – 9" Ribbed Waterstop with	ZASSO = 1 ZSS 1 Z40 Closs Commoditions . 1 :
Center Bulb, Heavy Duty	Patterns
9RCBLW – 9" Ribbed Waterstop with	Patterns
Center Bulb, Light WeightD7-9	CONCST - Concrete, StoneD7-17
BOX – Box Pile	EEARTH – Existing EarthD7-17
CMUFL - Fluted Concrete Block,	GRAVEL - GravelD7-17
8 X 8 X 16D7-10	ORAVEL - Graver
CMURIB – Ribbed Concrete Block,	Cumbala
8 X 8 X 16D7-10	Symbols
CMUSF - Split Face Concrete Block,	ANBOLT - Anchor BoltD7-21
8 X 8 X 16D7-10	CNTLIN – Centerline Symbol
CMUSTR – Structural Concrete Block,	COLLIN – Column Line/Grid IndicatorD7-21
8 X 8 X 16D7-10	JSTBR1 – Joist Bar, Single LineD7-21
PLZ23 – PLZ23 Sheet PilingD7-10	JSTBR2 – Joist Bar, Single LineD7-21
PLZ25 – PLZ25 Sheet PilingD7-10	PLATE – Plate SymbolD7-21
PS27.5 – PS27.5 Sheet PileD7-10	PLATE - Plate Symbol
PS31 – PS31 Sheet Pile	
PSA23 – PSA23 Sheet PileD7-11	
PZ22 – PZ22 Sheet PileD7-11	Architectural
PZ27 – PZ27 Sheet PileD7-11	
PZ35 – PZ35 Sheet PileD7-11	Lines
PZ40 – PZ40 Sheet PileD7-11	
RC230 - RC230 Sheet Pile ConnectionD7-11	INBATT - Loose Fill Batt. Insulation D8-3
RC231 – RC231 Sheet Pile ConnectionD7-11	WWFBRC - Welded Wire Fabric D8-3
ZC270 - PZ22 PZ27 L ConnectionD7-11	
ZC271 - PZ22 PZ27 L ConnectionD7-11	
ZC272 - PZ22 PZ27 L ConnectionD7-12	_
Appendix D A/E/C CADD Symbology	xi

Objects	Casement Outward Open	D8-11
·	WINDH – Double Hung Window	
BRKGL - Glazed Brick D8-7	WINFIX - Fixed 1 Foot Window	D8-11
CMU – Masonry UnitD8-7	WINJAL - Jalousie Window	D8-11
CMUBLK - Concrete Block, 8X8X16D8-7	WINOSL - Sliding Window Left	
CMUCOR - Concrete Block,	Operating Sash	D8-11
8X8X16 Corner	WINOSR - Sliding Window Right	
CMUEND - Concrete Block,	Operating Sash	D8-11
8X8X16 EndD8-7	WINPIV - Pivot Window	
CMUGL - Glazed Concrete BlockD8-7	WINSCL - Window Single Casement	
CMUSTR - Concrete Block,	Left Jamb Hinge	D8-11
8X8X16 StrD8-7	WINSCR - Window Single Casement	
DOR18L – Left Door, 180 Degree	Right Jamb Hinge	
Swing	WINSH - Single Hung Window	
DOR18R - Right Door, 180 Degree	5 5	
Swing	Patterns	
DORBFL - Left Bifold DoorD8-8		
DORBFR - Right Bifold DoorD8-8	ADOBE - Masonry/Adobe Rammed	
DORCPV - Door Center Pivot D8-8	Earth	D8-15
DORCYL - Cylindrical Door D8-8	ALUMIN – Aluminum	
DORDBL - Left Double Door	ASHLER - Stone Ashler	D8-15
DORDBR - Right Double Door D8-8	BRASS - Bronze Brass	D8-15
DORDEL – Left Double Egress Door D8-8	BRBLCO - Coursed Brick Block	D8-15
DORDER – Right Double Egress Door D8-8	BRCOBD - Common Bond Brick	D8-15
DORFSL – Left Single Full	BRENBD - English Bond Brick	D8-15
Swing DoorD8-8	BRFLBD - Flemish Bond Brick	D8-15
DORFSR - Right Single Full	BRFLCB - Flemish Common Bond	D8-15
Swing Door	BRKCF - Common/Face Brick	D8-16
DOROVH - Overhead DoorD8-9	BRKELE - Brick Elevation	D8-16
DORPOC - Door PocketD8-9	BRRNBD - Brick Running Bond	D8-16
DORRUP - Roll Up DoorD8-9	BRSTBD - Brick Stack Bond	D8-16
DORSHL – Left Single Hinged Door D8-9	CCBSS - Cast Concrete Block,	
DORSHR - Right Single Hinged Door D8-9	Small Scale	D8-16
DORSLD - Sliding DoorD8-9	CCELEV - Concrete Cement	
DORSLS - Sliding Surface Door D8-9	Elevation	D8-16
DORSPL - Left Single Pivot DoorD8-9	CDTOP - Cementitious Deck &	
DORSPR - Right Single Pivot Door D8-10	Topping	D8-16
DORUDL - Left Uneven Double Door D8-10	CMUBP - CMU Block	D8-16
DORUDR - Right Uneven Dbl. Door D8-10	CMUELB - Elevation Block	D8-16
LINTEL - Concrete Beam Bond	CONBLK - Concrete Block	D8-17
LintelD8-10	CONCCN - Concrete, Cinder	D8-17
WINAWN - Window AwningD8-10	CONCLW - Concrete, Light Weight.	
WINBAY - Projected Bay Window D8-10	CONCPR - Precast Cast-in-Place	
WINBOW - Projected Bow Window D8-10	Concrete	
WINBOX - Projected Box WindowD8-10	CONCST - Concrete, Stone	D8-17
WINDCI - Window Double	CONPBS - Pumice Block Concrete,	
Casement Inward OpenD8-10	Small Scale	D8-17
WINDCO - Window Double	CSTIRN - Cast Iron	D8-17

CSTSTN - Cast StoneD8-17	BATHHL – Hydrotherapy Leg Bath	.D8-23
CTILSS - Ceramic Tile, Small ScaleD8-17	BATHIF - Infant Bath	.D8-24
CUTSTN – Cut StoneD8-18	BATHIN - Institutional Bath	.D8-24
EARTH – Compacted Fill EarthworkD8-18	BATHRC - Recessed Bath	.D8-24
FIBFSF – Fibrous Fire SafingD8-18	BATHRR - Roll Rim Bath	D8-24
GLASS – Structural GlassD8-18	BATHSZ - Sitz Bath	D8-24
GROUT – Grout	BATHWP - Whirlpool Bath	D8-24
GRVCRE – Crushed Rock Earth	BIDET - Watercloset Bidet	D8-24
GravelD8-18	BRFACC - Brick Face on Common	D8-24
GRVPFE – Porous Fill Gravel	BRFIRE - Fire Brick	D8-24
EarthworkD8-18	BSSFLG - Bluestone / Slate /	
GRVSCL – Sand Clay GravelD8-18	Soapstone / Flagging	D8-25
GYPPPE – Gypsum Plaster Plan &	CANWCT - Can Washer, Cabinet	
ElevationD8-18	Type	D8-25
INSQLT – Large Scale Insulation	CANWDT - Can Washer, Dish Type	D8-25
QuiltsD8-19	CARPET - Carpet and Pad	D8-25
INSRIG – Rigid InsulationD8-19	CPLANK - Concrete Plank	D8-25
INSSCM – Solid Cork Magnesia	DFPROJ – Drinking Fountain,	
Insulation	Projecting Type	D8-25
MARBL2 – Marble Stone	DFRECS – Drinking Fountain,	
	Recessed Type	D8-25
RIPRAP – RiprapD8-19 ROCK – Rock EarthworkD8-19	DFSREC - Drinking Fountain,	
	Semi-Recessed Type	D8-25
RUBBLE – Stone Rubble	DOORID – Door Opening Identifier	D8-25
SAND – Sand	DSHWSH – Commercial Dishwasher	D8-26
STEEL – Steel and other MetalsD8-19	EQPMID – Equipment Identifier	
STNSQR – Squared Stone	FASTEN – Fastener	D8-26
TCBCSS – Terra Cotta (Small Scale)	FLRRPL - Flooring, Resilient	
Brick Cotta	Plastic Laminate	D8-26
TCELEV - Terra Cotta ElevationD8-20	FURCHH – Furring Channel Hat	D8-26
TCUSS – Terra Cotta (Small Scale)	FURCHN – Furring Channel	D8-26
Unglazed	GLASLS – Large Scale Glass	D8-26
TERRZO – Terrazzo	GLASSS – Small Scale Glass	D8-26
TILCER – Ceramic Tile ElevationD8-20	GLBLLS -Glass Block, Large Scale.	
TILESF – Structural Facing TileD8-20	GLBLSS -Glass Block, Small Scale.	D8-27
<b>a</b> 1	GLELEV - Glass Elevation	D8-27
Symbols	GPLANK – Gypsum Plank	D8-27
A D ODDAY A walking and	GYPBLK – Gypsum Block	D8-27
ARCPBW – Architectural	GYPPOM – Gypsum Plaster on	50 2.
Particleboard Woodwork	Masonry	D8-27
ASBDLS – Large Scale Asbestos	GYPPPB – Gypsum Plaster Particle	
Board	Board	D8-27
ASBDSS – Small Scale Asbestos	GYPSPP – Gypsum Solid Plaster	100-27
Board	Partition	D8-22
BATHCO – Corner Bath	GYPWBD – Gypsum Wallboard	
BATHEM – Emergency Bath	Finishes	D8-21
BATHFT – Foot Bath	INFBSS – Small Scale Flexible	200-2
BATHHA – Hydrotherapy Arm BathD8-23	Blanket Insulation	D8-3,
BATHHH – Hydrotherapy	Bianket insulation	170-2
Hubbard BathD8-23		

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INLFLS – Large Scale Loose Fill	SNKKLR – Kitchen SinkD8-32
InsulationD8-28	SNKLDB – Sink w/Left Drainboard D8-32
INS1RM – Insulation, Reflective Metal	SNKLTR – Sink Laundry TrayD8-32
On 1 Side	SNKSCW - Semi-Circular Wash Sink. D8-32
INS2RM - Insulation, Reflective	SNKSLP - Slop-Type SinkD8-32
Curtain 2 Sides (Sm. Scale)D8-28	SNKSRV – Service SinkD8-32
INSFOM – Spray Foam Insulation D8-28	SNKSSC - Surgeon Scrub SinkD8-32
INSTND - Insulation, Type Not	STLCSS - Structural Clay Tile,
Determined (Lg. Scale)D8-28	Small Scale
LAVBCK - Back LavatoryD8-28	SUSPNT – Suspension Tee
LAVCOR - Corner LavatoryD8-28	TC1FLS - Terra Cotta Glazed
LAVCOU – Lavatory in CounterD8-28	1 Face (Large Scale)D8-33
LAVDNT - Dental LavatoryD8-28	TC2FSS - Terra Cotta Glazed
LAVHND - Handicapped Lavatory D8-29	2 Faces (Small Scale)D8-33
LAVMDM - Med. Manicure Lavatory D8-29	TCHOLW - Hollow Terra Cotta D8-33
LAVSLB - Slab Type LavatoryD8-29	TCLS – Large Scale Terra CottaD8-33
MTLLPL - Metal Lath and PlasterD8-29	TCQLS - Terra Cotta QuarryD8-33
MTLSHT - Metal Sheet and all Metals	TCUGLS – Terra Cotta Unglazed
(Small Scale)D8-29	(Large Scale)D8-33
ORISTB - Oriented Strand BoardD8-29	TCVENR - Veneer Terra CottaD8-33
PARTBD – ParticleboardD8-29	THRSHD - ThresholdD8-34
PLASTC – Plastic FinishesD8-29	TILFSS - Small Scale Tile Facing D8-34
PLPLLS – Large Scale Plastic on	TILGSC - Glazed Structural Clay
Plywood	TILGSC – Glazed Structural Clay Tile MasonryD8-34
PLPLSS – Small Scale Plastic on	TILSFU – Tile Structural Floor Units D8-34
Plywood	TLACOU – Acoustical Tile Finishes D8-34
PLYWLS – Large Scale PlywoodD8-30	TLCRLS – Ceramic Tile Finish
PLYWSS - Small Scale PlywoodD8-30	Large ScaleD8-34
RBIILS - Rigid Board on	TRAY1L - Single Laundry Tray D8-34
Interior Insulation, Large Scale D8-30	TRAY2L – Double Laundry TraysD8-34
RBISLS - Insulation, Rigid Board	URNLCO - Corner Type UrinalD8-34
as Sheathing (Lg. Scale)D8-30	URNLPD – Pedestal Type UrinalD8-35
ROOMID - Room Identifier D8-30	URNLST – Urinal StallD8-35
SDIRLD – Stair Direction Line Down D8-30	URNLTR – Trough Type UrinalD8-35
SDIRLU – Stair Direction Line UpD8-30	URNLWH – Wall Hung UrinalD8-35
SHWRCO - Corner ShowerD8-30	WALLID - Wall Type IdentifierD8-35
SHWRHD – Shower HeadD8-31	WCELWH - Electric Wall Hung
SHWROG – Shower Overhead GangD8-31	Water CoolerD8-35
SHWRPG – Shower Pedestal GangD8-31	WCFVFO - FV Flr Outlet Watercloset D8-35
SHWRST – Shower StallD8-31	WCFVWH – FV WH Watercloset D8-35
SLOPE - Direction of Line SlopeD8-31	WCITNK - Integral Tank Watercloset. D8-35
SNK2BD – Double Bowl SinkD8-31	WCTANK - Tank Type Watercloset D8-36
SNK2CT – Two Compartment SinkD8-31	WCWHTN - WH Tank Watercloset D8-36
SNKCWT – Circular Wash Type Sink. D8-31	WDFLBD – Wood Floor BoardD8-36
SNKDSP – Sink DisposerD8-31	WDFNOS - Wood Finish on StudsD8-36
SNKFRC – Flushing Rim	WDFRAM - Continuous Wood
Clinical SinkD8-32	FramingD8-36
SNKGEN – General SinkD8-32	WDSHSD - Wood Shingles SidingD8-36

	D0 26	GIIS1 - Identification Sign w/1 Slot	D9-6
WFINSH – Wood Finish	D8-36	GIIS2 – Identification Sign w/2 Slots	D9-6
WINID - Window Identifier	D8-36	GIPIC1 – Pictogram 1	D9-6
WOODHB - Hardboard Wood	D8-36	GIPIC2 – Pictogram 2	D9-6
WSHRBP – Bedpan Washer	D8-37	GMAN – Man Symbol for Restroom	133
WTRPFF - Waterproofing Felt	D0 27	Signage	D9-6
Flashing	D8-37	GWOMAN – Woman Symbol for	
		Restroom Signage	D9-6
		SDMGT – Management Chair w/Arms	
Interiors		24W X 22D	, D0-6
		SDSEC – Secretarial Chair w/out	<b>D</b> )-0
Objects		Arms, 23W X 22D	D9-7
		SDTASK – Task Chair	D9-7
ABLLBD - Bulletin Board	D9-3	SDIASK — Task Chall	D)-7
ACOSTM – Costumer		SGANG – Gang Seating w/Table	D0_7
ADDCAB – Double Door Cabinet	D9-3	SSOF37 – Sofa Chair, 37W X 34D	۱رس
AEAS30 – Easel, 30W (Hidden)		SSOF63 – 2 Cushion Sofa,	D0.7
AMAG15 – Magazine Rack,		63W X 34D	۱-رس
15W X 3D	D9-3	SSOF82 – 3 Cushion Sofa, 82.5W X 34D	D9-7
AMAGLT – Magnifying Light	D9-3		
APRJSC - Projection Screen,		STAB24 – Chair Tablet Arm, 24W X 24D	D9-7
Ceiling-Mounted	D9-3		۱-رور
ASTCAB – Storage Cabinet	D9-3	T42SQ – Table, 42SQ w/ Armless Chairs	D9-7
D65CLR - Desk 65 Comp LR	D9-3	TMS30 – Mailsort Table 16 OH	
D65CRR - Desk 65 Comp RR	D9-4	Slots 30W	D9-7
D7230L - L.H. Single Pedestal De	sk,	TPOOL – Pool Table	D9-8
72W X 30D (2)		TROUND – Round Table	D9-8
D7230R - R.H. Single Pedestal De	esk,	W7230L – Workstation L Unit LR	D9-8
72W X 30D (2)	D9 <b>-</b> 4	W7230R – Workstation L Unit RR	D9-8
DPFF - Desk, Double File Pedesta	ılD9-4	WCPDSK – Desk, Computer	D9-8
DPFL - Desk, Left Pedestal	D9-4	WFLIPR - Flipper Door Unit	D9-8
DPFR - Desk Return Pedestal File	D9-4	WLIGHT – Workstation Light	D9-8
DSC1 – Desk, Study Carrel, Single	≥D9 <b>-</b> 4	WPED – Workstation Pedestal	D9-8
ECGAME – Freestanding Comput	er	WILD WORKStation & Gastian	
Game	D9-4	Symbols	
ECOMCN - Comsec Container		Cymbolo	
EDRYER – Dryer	D9-5	ACURTN - Curtain	D9-11
EPINBL – Pinball Machine	D9-5	APLANT – Artificial Plant	D9-11
EREFRG - Refrigerator	D9-5	GHNDCP - Universal Handicap	
ETV - Television	D9-5	Symbol	D9-11
EVEND - Vending Machine	D9-5	GIID – Identification Sign	D9-11
EWASHM - Washing Machine		MFMATL – Furniture Material List	D9-11
F4DL – Lateral File Cab-4 Drawer	rD9-5	MFSCHD – Furniture Schedule	
FC3618 - Storage Cabinet,		MFSYMB – Furniture Symbol	
36W X 18D	D9-5	MNORTH – North Arrow	D9-11
FE7422 - Equip. Shelving, 74W X	22D,	MRSCHD – Room Finish Schedule	D9-11
Barracks	D9-5	MSSCHD – Signage Schedule	
FV1833 - Vertical File, 18W X 33		TILDO OLLO MARINES DE CONTROL DE	
GIDIR - Directory	D9-6		

Fire Protection	ExtinguisherD10-9
	DCLGAA – Dry Chemical System Auto Act.
Lines	(Liquid, Gas, Elec. Fires)D10-9
	DCLGMA – Dry Chemical System Man Act.
FIRE - Fire Protection Water Supply D10-3	(Liquid, Gas, Elec. Fires)D10-9
MANSUC – Suction MainD10-3	DMPBAR – Barometric DamperD10-10
SPRINK – Main Supply SprinklerD10-3	DMPFIR – Fire DamperD10-10
STDCOM – Standpipe CombinationD10-3	DMPFS - Fire/Smoke DamperD10-10
STDDRY – Dry StandpipeD10-3	DMPSMK – Smoke DamperD10-10
STDWET – Wet StandpipeD10-3	DRHOLD – Door HolderD10-10
515 WEI Wet Statistics production in the state of the sta	DTFLAM – Flame DetectorD10-10
Symbols	DTFLOW - Flow Detector/SwitchD10-10
	DTGAS - Gas DetectorD10-10
1DIR - Direction ArrowD10-7	DTLEVL - Level Detector/Switch D10-10
ABORT – Abort Switch	DTPRES – Pressure Detector/
ACCESS – Fire Department Access D10-7	SwitchD10-11
AGSTCN – Agent Storage ContainerD10-7	DTTAMP - Tamper DetectorD10-11
BELLFA – Bell (Gong)D10-7	ELBP1L – 1-Lamp Emergency Light,
BOILER – BoilerD10-7	Battery PoweredD10-11
CHIMNY – Chimney	ELBP2L - 2-Lamp Emergency Light,
CO2AA – CO2 Automatically Actuated	Battery PoweredD10-11
Extinguishing SystemD10-7	ELBP3L – 3-Lamp Emergency Light,
CO2MA – CO2 Manually Actuated	Battery PoweredD10-11
Extinguishing SystemD10-7	EPSTA – Emergency Phone Station D10-11
CONSFS – Freestanding Siamese Fire	ESCAPE – Fire EscapeD10-11
Department ConnectionD10-8	EXFOAM - Foam ExtinguisherD10-11
CONSIA – Siamese Fire Department	EXITCM – Ceiling Mounted Exit Sign
Connection	LightD10-11
CONSNG – Single Fire Department	EXITLF - Exit Sign, Lighted Face D10-12
Connection D10-8	EXITWM – Wall Mounted Exit Sign
CPESR – Elevator Status/RecallD10-8	LightD10-12
CPFAC – Fire Alarm Communicator D10-8	EXWATR – Water ExtinguisherD10-12
CPFCP – Fire Alarm Control Panel D10-8	FANDCT – Duct FanD10-12
CPFSA – Fire System AnnunciatorD10-8	FANGEN – General FanD10-12
CPFTR – Fire Alarm Transponder or	FANWAL – Wall FanD10-12
Transmitter	FDOR3 – 3-Hour Rated Fire Door
CPHCP – Halon Control PanelD10-8	in WallD10-12
CPHVA – Control Panel for HVAC D10-9	FDORL3 – Wall w/<3-Hour
DCATAA – All-Type Fire Extinguisher,	Rated DoorD10-12
Automatically ActuatedD10-9	FPDRIV – Fire Pump w/DrivesD10-12
DCATMA – All-Type Fire Extinguisher,	FPFREE – Free Standing Test Header D10-13
Manually ActuatedD10-9	FPTEST - Wall-Mtd. Test Header D10-13
DCEABC – Dry Chemical Extinguisher	FRR1HR – 1-Hour Fire Resistance
(ABC-Type)D10-9	RatingD10-13
DCEBC – Dry Chemical Extinguisher	FRR2HR – 2-Hour Fire Resistance
(BC-Type)D10-9	Rating
DCECO2 – CO2 ExtinguisherD10-9	FRR30 – 30 Minute Fire Resistance
DCEHI N - Halon or Clean Agent	Rating D10-13

FRR3HR – 3-Hour Fire Resistance	SHGARD – Sprinkler Head w/Guard.D10-17
RatingD10-13	SHNUU – Nippled Up Upright
FRR45 – 45 Minute Fire Resistance	Sprinkler HeadD10-17
RatingD10-13	SHOUT – Outside Sprinkler HeadD10-17
FRR4HR – 4-Hour Fire Resistance	SHPEND - Pendent Sprinkler HeadD10-17
RatingD10-13	SHPNDN – Pendent Sprinkler Head, on
FULLSS - Fully Sprinklered SpaceD10-13	Drop NippleD10-17
HD – Heat DetectorD10-14	SHSIDE - Sidewall Sprinkler HeadD10-17
HLNAA – Automatically Actuated Halon	SHUPRT – Upright Sprinkler Head D10-17
Extinguishing SystemD10-14	SMKBAR – Smoke BarrierD10-17
HLNMA – Manually Actuated Halon	SSNOZZ – Special Spray NozzleD10-17
Extinguishing SystemD10-14	THRUST - Thrust BlockD10-18
HOSECS - Hose Station, Charged	TNKBG - Tank, Below GroundD10-18
StandpipeD10-14	TNKHAG - Tank, Horizontal
	Above GroundD10-18
HOSEDS – Hose Station,	TNKVAG - Tank, Vertical
Dry StandpipeD10-14	Above GroundD10-18
HRN1A – Horn w/Light,	VLVCHA – Alarm Check ValveD10-18
One Assembly	VLVCHK - Check ValveD10-18
HRNMIN – Mini HornD10-14	VLVDEL – Deluge ValveD10-18
HRNSA – Horn w/Light,	VLVDRY – Dry Pipe ValveD10-18
Separate AssemblyD10-14	VLVIBF - Indicating Butterfly
HRNSPK – Speaker/Horn	ValveD10-18
(Electric Horn)D10-14	VLVKEY – Key-Operated ValveD10-19
HYDPR1 – Private Hydrant,	VLVNON – Nonindicating Valve
One-Hose OutletD10-15	(Nonrising Stem)D10-19
HYDPR2 - Private Housed Hydrant,	VLVOSY – OS&Y ValveD10-19
Two-Hose OutletsD10-15	VLVUSY - US&Y ValveD10-19
HYDPU2 – Public Hydrant,	VLVPI – Post Indicator Valve
Two-Hose OutletsD10-15	VLVPIT – Valve in Pit
HYDPUP – Public Hydrant, Two-Hose	VLVPRE – Preaction Valve
Outlets, Pumper ConnectionD10-15	VLVQOD – Dry Pipe Valve, w/Quick
HYDW2H - Wall Hydrant,	Opening DeviceD10-19
Two-Hose OutletsD10-15	VLVTDS - Valve w/ Tamper
LITFAS – LightD10-15	Detector/Switch
MANSTA – Manual StationD10-15	VNTOPN - Ventilation Openings D10-19
METRFP – MeterD10-15	WALARM – Water Motor AlarmD10-20
MNCHRG – Monitor Nozzle,	WATRSS – Water Spray SystemD10-20
ChargedD10-15	WBDSMA – Water-Based Dry System
MNDRY - Monitor Nozzle, DryD10-16	Manually ActuatedD10-20
NONSS - Non-Sprinklered SpaceD10-16	WBDSSA - Water-Based Dry System
PARTSS - Partially Sprinklered	Automatically ActuatedD10-20
SpaceD10-16	WBFSAA - Water-Based Foam System
PURGE – Manual Purge ControlD10-16	Automatically ActuatedD10-20
RISER – RiserD10-16	WBFSMA - Water-Based Foam System
RSCO2 – CO2 Reel StationD10-16	Manually ActuatedD10-20
RSDRYC – Dry Chemical	WBWSAA - Water-Based Wet System,
Reel StationD10-16	Automatically ActuatedD10-20
RSFOAM – Foam Reel Station	WBWSMA - Water-Based Wet System,
SD –Smoke DetectorD10-16	Manually ActuatedD10-20
poendiy D. A/E/C. CADD Symbology	xix

### **Plumbing**

#### **Symbols**

#### Lines

CDRNAF – Condensate Drain	
CLDWTR - Potable Cold Water	.D11-3
CMPAIR - Compressed Air	.D11-3
DIOWTR - Deionized Water	
DSTWTR - Distilled Water	.D11-3
FIRE - Fire Protection Water Supply	.D11-3
FUELOR - Fuel Oil Return	.D11-3
FUELOS - Fuel Oil Supply	.D11-3
FUELOV - Fuel Oil Tank Vent	.D11-3
HELIUM – Helium	.D11-4
HWTR - Potable Hot Water	.D11-4
HWTRR - Potable Hot Water Return.	.D11-4
HYDRGN - Hydrogen	.D11-4
ICWTR - Industrial Cold Water	
IHWTRR – Industrial Hot Water	
Return	.D11-4
IHWTRS - Industrial Hot Water	
Supply	.D11-4
INDDRN - Indirect Drain	.D11-4
LIQNIT - Liquid Nitrogen	.D11-4
LIQOXY - Liquid Oxygen	
LIQPET - Liquid Petroleum Gas	.D11-5
NITOXI - Nitrous Oxide	.D11-5
NITROG – Nitrogen	
NONPOT – Nonpotable Water	
NTGASN - Natural Gas Piping	.D11-5
OXYGEN – Oxygen	.D11-5
PNTUBE – Pneumatic Tube Runs	.D11-5
ROOFDN - Roof Drain	.D11-5
SFCWTR - Soft Cold Water	.D11-6
SHWTRR – Sanitizing Hot Water	
Return (180F)	.D11-6
SHWTRS - Sanitizing Hot Water	
Supply (180F)	
SSWAF – Sanitary Sewer	
STRAF – Storm Drain	
VACAIR – Vacuum Air	
VENT – Vent	.D11-6
VENTWS – Vent and Waste	
Combination	D11-6

CAPSC – Cap	
DRNFUN - Open Drain Funnel	
EL45SC – 45 Degree Elbow	
EL90SC – 90 Degree Elbow	D11-9
ELBSC - Base Elbow	D11-9
ELDBSC - Double Branch Elbow	D11-9
ELLRSC - Long Radius Elbow	D11-9
ELODSC - Side Outlet Elbow,	
Outlet Down	D11-9
ELOUSC - Side Outlet Elbow,	
Outlet Up	D11-9
ELSTRT – Street Elbow	
ELTDSC – Turned Down Elbow	
ELTUSC – Turned Up Elbow	
FCO – Floor Cleanout	
FDCO – Floor Drain with Cleanout	
FDDT – Floor Drain with Deep Trap	
FDNT – Floor Drain with No Trap	
FDTP - Floor Drain with Trap Prime	.DI1-10
FDWT – Floor Drain with Trap	
FLBLND – Blind Flange	
FLOW3 – Flow Arrow	
FLRPEN – Iso. Floor Penetration	
GAUGE – Gauge	
HANGRD – Hanger Rod	.D11-11
HANGSP - Hanger Spring	.D11-11
ISOEWC – Isometric EWC	
ISOLAV – Isometric Lavatories	
ISOMOP – Isometric Mop Sink	.D11-11
ISOUR1 – Isometric Wall Mounted	
Urinals	.D11-12
ISOWC1 - Isometric Floor Mounted	
Water Closet	.D11-12
ISOWC2 – Isometric Wall Mounted	
Water Closet	
LOOPL - Left Dimension Loop	
LOOPR - Right Dimension Loop	
PLGBFL – Bull Plug, Flanged	
PLGPSC – Pipe Plug	
PRGGCO – Pressure Gauge and Coc	
PUMP – Pump	
PUMPP – Pump (Schematic)	D11-12
PUMPS – In-Line Pump	D11-13
SLEEVE – Sleeve	
STGLAS – Sight Glass	כו וות.
STRAIN – Strainer	לו-ווע.

STRBLO – Blow Off StrainerD11-13	Outside Stem & YokeD11-17
TDSSC - Double Sweep TeeD11-13	VANEED - Needle ValveD11-17
THERM – ThermometerD11-13	VAPLUG – Plug ValveD11-17
TRAPST - Steam TrapD11-13	VAPMTD – Valve Actuator
TSODSC - Tee, Side Outlet,	Pneumatic Motor DiaphragmD11-17
Outlet DownD11-14	VAPRED - Pressure Reducing Valve D11-17
TSOUSC - Tee, Side Outlet,	VAPRRD - Pressure Reducing Valve D11-17
Outlet UpD11-14	VAQOSC - Quick Opening Valve D11-18
TSSSC - Straight Size TeeD11-14	VARELF – Relief or Safety ValveD11-18
TSSWSC - Single Sweep TeeD11-14	VASCE – Angle Globe Valve
UNIOSC – UnionD11-14	(Elevation)D11-18
VA3WAM - 3-Way Air Motor	VASCP - Angle Globe Valve (Plan)D11-18
Controlled ValveD11-14	VASFSC - Safety ValveD11-18
VA3WEM – 3-Way Electric Motor	VASGCH – Swing Gate Check Valve D11-18
Controlled ValveD11-14	VASNAP – Snap Action ValveD11-18
VA3WM – 3-Way Manual ValveD11-14	VASOLN - Solenoid ValveD11-18
VAAHOS – Angle Hose ValveD11-14	VASPCH - Spring Check ValveD11-18
VABALL – Ball ValveD11-15	VASTSC – Gate ElbowD11-19
VABFLY – Butterfly ValveD11-15	VASWSC - Straight Way Check
VACWR – Condenser Water	ValveD11-19
Regulating ValveD11-15	VATPR - Temperature Pressure
VADISC – Diaphragm ValveD11-15	Relief ValveD11-19
VAEMTR – Valve Actuator Electric	VLVCHK - Check ValveD11-19
MotorD11-15	
VAESOL – Valve Actuator Electric	
	Mechanical
SolenoidD11-15	Mechanical
SolenoidD11-15 VAGAMC – Air Motor Controlled	
SolenoidD11-15	Mechanical  Lines
Solenoid	Lines
Solenoid	Lines  ACIDWS – Acid WasteD12-3
Solenoid	ACIDWS – Acid Waste

Appendix D A/E/C CADD Symbology

HTHWR – High Temperature Hot	CFM2X3 – Airflow CFMD12-12
Water ReturnD12-5	CFM2X4 – Airflow CFMD12-12
HTHWS – High Temperature Hot	CFM3X4 – Airflow CFMD12-12
Water Supply	COCKSC - Cock
HUMID – Humidification LineD12-5	CREDSC - Concentric ReducerD12-13
HWR – Low Temperature Hot	CRSRSC - Cross
Water ReturnD12-5	CUPJNT - Coupling JointD12-13
HWS – Low Temperature Hot	DCTHTR - Electric Duct HeaterD12-13
Water SupplyD12-5	DMPEOC - Electric Operated
ICWTR - Industrial Cold WaterD12-5	Damper ControlD12-13
IHWTRR – Indust. Hot Water Return D12-5	DMPFIR – Fire DamperD12-13
IHWTRS – Indust. Hot Water Supply D12-5	DMPFS – Fire Smoke DamperD12-13
IWASTE – Industrial WasteD12-5	DMPPOD – Pneumatic DamperD12-13
LPCNDR - Low Pressure Condensate .D12-6	DMPSMK – Smoke DamperD12-13
MAKEUP – Make Up WaterD12-6	DPRSD – Duct Pressure Class Down.D12-14
MPCNDR – Medium Pressure	DPRSH – Duct Pressure Class Horiz .D12-14
CondensateD12-6	DPRSL – Duct Pressure Class Left D12-14
MTHWR – Medium Temperature	DPRSR - Duct Pressure Class RightD12-14
Hot Water ReturnD12-6	DPRSU - Duct Pressure Class UpD12-14
MTHWS - Medium Temperature	DPRSV – Duct Pressure Class Vert D12-14
Hot Water SupplyD12-6	DRIER – Drier
NONPOT – Nonpotable WaterD12-6	EEQ2X2 - Electrical Equipment
PNTUBE – Pneumatic Tube RunsD12-6	2X2 MarkD12-14
REFRL - Refrigerant LiquidD12-6	EEQ2X3 - Electrical Equipment
REFRS - Refrigerant Suction	2X3 MarkD12-14
STEAMH - High Pressure SteamD12-7	EEQ2X4 - Electrical Equipment
STEAML - Low Pressure SteamD12-7	2X4 MarkD12-15
STEAMM - Medium Pressure Steam D12-7	EEQ3X2 - Electrical Equipment
TUVANE – Turning VanesD12-7	3X2 MarkD12-15
VACAIR – Vacuum AirD12-7	EEQ3X3 – Electrical Equipment
VACPD – Vacuum Pump Discharge D12-7	3X3 MarkD12-15
	EEQ3X4 – Electrical Equipment
Symbols	3X4 MarkD12-15
	EL45SC – 45 Degree ElbowD12-15
ACCDOR – Duct Access DoorD12-11	EL90SC – 90 Degree ElbowD12-15
AGUIDE – Alignment GuideD12-11	ELBSC – Base ElbowD12-15
AIRELM – Air EliminatorD12-11	ELDBSC – Double Branch ElbowD12-15
AIRIN – Air In	ELLRSC – Long Radius ElbowD12-15
AIRSEP – Air SeparatorD12-11	ELODSC – Side Outlet Elbow,
ANCHRI – AnchorD12-11	Outlet DownD12-16
AVENTA – Automatic Air VentD12-11	ELOUSC - Side Outlet Elbow,
AVENTM – Manual Air VentD12-11	Outlet UpD12-16
BALLJT – Ball JointD12-11	ELSTRT – Street ElbowD12-16
BUSHSC – Bushing	ELTDSC - Turned Down ElbowD12-16
CAPSC – Cap	ELTUSC – Turned Up ElbowD12-16
CAPTUB – Capillary TubeD12-12	EREDSC – Eccentric Reducer
CDRND – Round Ceiling Diffuser D12-12	EXPJNT – Expansion Joint
CDSQR – Square Ceiling DiffuserD12-12	FANERV – Exhaust Roof Vent FanD12-16

FANLRV - Louvered Roof	TOUSC - Tee, Outlet UpD12-21
Vent FanD12-16	TRAPFL – Float TrapD12-21
FANSRV - Intake Roof Vent FanD12-17	TRAPFT - Float and Thermostatic
FLBLND - Blind FlangeD12-17	Trap
FLOW1 – Air Flow Direction Arrow .D12-17	TRAPST - Steam TrapD12-22
FLRPEN – Iso. Floor PenetrationD12-17	TRAPTB – Thermostatic Blast
FLXCON – Flexible ConnectorD12-17	TrapD12-22
GAUGE – GaugeD12-17	TSODSC - Tee, Side Outlet,
GRILEX – Exhaust GrilleD12-17	Outlet DownD12-22
GRILSU – Supply GrilleD12-17	TSOUSC - Tee, Side Outlet,
HANGRD – Hanger RodD12-17	Outlet UpD12-22
HANGSP – Hanger SpringD12-18	TSSSC - Straight Size TeeD12-22
HSENS – Humidity Sensor	TSSWSC - Single Sweep TeeD12-22
HSTAT – HumidistatD12-18	UNIOSC - UnionD12-22
LNDIFF – Linear Diffuser	VA3WAM – 3-Way Air Motor
LOOPL – Left Dimension LoopD12-18	Controlled ValveD12-22
LOOPR – Right Dimension LoopD12-18	VA3WEM - 3-Way Electric Motor
LOUOPN – Door or Wall Louver	Controlled ValveD12-22
OpeningD12-18	VA3WM – 3-Way Manual ValveD12-23
PIDROP – Pitch or Pipe DropD12-18	VAAHOS – Angle Hose ValveD12-23
PIRISE – Pitch or Pipe RiseD12-18	VABALL – Ball ValveD12-23
PLGBFL – Bull Plug, FlangedD12-19	VABFLY – Butterfly ValveD12-23
PLOBEL - Buil Flug, Flangeu	VACWR – Condenser Water
PLGPSC – Pipe PlugD12-19	Regulating ValveD12-23
PRGGCO – Pressure Gage and CockD12-19	VADISC – Diaphragm ValveD12-23
DCDIEE Prome Systion Diffusor D12-19	VAEMTR – Valve Actuator Electric
PSDIFF – Pump Suction DiffuserD12-19 PUMP – PumpD12-19	Motor
PUMP – Pump	VAESOL – Valve Actuator Electric
PUMPP – Pump (Schematic)D12-19	SolenoidD12-23
PUMPS – In-Line Pump	VAFLSC – Float ValveD12-23
SCALET – Scale TrapD12-19	VAGAMC – Air Motor Controlled
SLEEVE – Sleeve	Gate ValveD12-24
STGLAS – Sight Glass	VAGLAM – Air Motor Controlled
STRAIN – Strainer D12-20	Globe ValveD12-24
STRBLO – Blow Off Strainer	VAGLE – Angle Globe ValveD12-24
SUPOUT – Supply Outlet	VAGLE - Aligie Globe ValveD12-24
(Wall Supply)	VAGSE – Angle Gate ValveD12-24
TDSSC – Double Sweep Tee	VAGSP – Angle Gate ValveD12-24
THERM – Thermometer	VAGTSE – Gate ValveD12-24
THERMW – Thermometer WellD12-20	VAHASC – Hose Angle ValveD12-24
THHRB – Thermostat, Remote Bulb .D12-20	VAHGLS – Hose Globe ValveD12-24
THHSC – Thermostat, Self	VAHGSC - Hose Gate ValveD12-25
Contained (HVAC)D12-20	VALSSC – Lock Shield ValveD12-25
THLPRS – Thermostat, Low PressureD12-21	VAMAGS – Magnetic Stop ValveD12-25
THMCP – Thermostat,	VAMNNS – Valve Actuator Manual
Microprocessor	Nonrising StemD12-25
THPELE – Thermostat, ElectricD12-21	VAMOGS – Motor Operated Gate
THPPNE – Thermostat, PneumaticD12-21	ValveD12-25
TMPSEN – Temperature SensorD12-21	v aiveDiz-23
TODSC - Tee, Outlet DownD12-21	

Appendix D A/E/C CADD Symbology

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Value D12.25	EPUGN – New Electrical Primary,
ValveD12-25	Underground
VAMOSY - Valve Actuator Manual	EPUGX - Existing Electrical Primary,
Outside Stem & YokeD12-25	UndergroundD13-4
VANEED – Needle Valve	ESARN – New Electrical Secondary,
VAPLUG – Plug ValveD12-25	Aerial
VAPMTD - Valve Actuator	ESARX – Existing Electrical Secondary,
Pneumatic Motor DiaphragmD12-26	AerialD13-4
VAPRED – Pressure Reducing Valve D12-26	ESUGN - New Electrical Secondary,
VAPRRD – Pressure Reducing	Underground
ValveD12-26	ESUGX - Existing Electrical Secondary,
VAQOSC - Quick Opening Valve D12-26	Underground
VARELF – Relief or Safety ValveD12-26	EUDUCN - New Duct Bank,
VASCE – Angle Globe ValveD12-26	Underground
——————————————————————————————————————	EUDUCX – Existing Duct Bank,
VASCP – Angle Globe ValveD12-26	
VASFSC – Safety Valve	Underground
VASGCH – Swing Gate Check ValveD12-26	FIBOPT – Fiber Optics LineD13-5
VASNAP – Snap Action ValveD12-27	LADDER – Cable LadderD13-5
VASOLN – Solenoid ValveD12-27	WIREWY – WirewayD13-5
VASPCH – Spring Check ValveD12-27	
VASTSC – Gate ValveD12-27	Symbols
VASWSC - Straight Way Check	•
ValveD12-27	1DIR – Direction ArrowD13-9
VATPR – Temperature Pressure	2DIR – Double Direction ArrowD13-9
Relief ValveD12-27	ACCBIO – Biometric Access Control D13-9
Relief ValveD12-27	ACLLEL - Elevated Approach
	Lightbar
Electrical	ACLLSF – Semiflush Approach
	LightbarD13-9
Lines	AERROD – Aerial RodD13-9
Lines	AFBCN – Airfield BeaconD13-9
DIICWAY D D12.2	ANNUN – Annunciator
BUSWAY – BuswayD13-3	ANNUN – Annunciator
CABLTV – Cable TVD13-3	ANNUNT – Local Control
CABLTV – Cable TVD13-3 COMARN – New Communication,	ANNUNT – Local Control Annunciation UnitD13-9
CABLTV – Cable TV	ANNUNT – Local Control Annunciation UnitD13-9 ARREST – Lightning ArrestorD13-10
CABLTV – Cable TVD13-3 COMARN – New Communication,	ANNUNT – Local Control Annunciation Unit
CABLTV – Cable TV	ANNUNT – Local Control Annunciation Unit
CABLTV – Cable TV	ANNUNT – Local Control  Annunciation Unit
CABLTV – Cable TV	ANNUNT – Local Control  Annunciation Unit
CABLTV – Cable TV       D13-3         COMARN – New Communication,       D13-3         COMARX – Existing Communication,       D13-3         COMUGN – New Communication,       Underground         D13-3	ANNUNT – Local Control Annunciation Unit
CABLTV – Cable TV	ANNUNT – Local Control  Annunciation Unit
CABLTV – Cable TV	ANNUNT – Local Control Annunciation Unit
CABLTV – Cable TV	ANNUNT – Local Control  Annunciation Unit
CABLTV – Cable TV       D13-3         COMARN – New Communication,       D13-3         COMARX – Existing Communication,       D13-3         COMUGN – New Communication,       Underground         Underground       D13-3         COMUGX – Existing Communication,       Underground         Underground       D13-3         CONDFL – Flexible Conduit       D13-3         DUCTTR – Trolley Duct       D13-3	ANNUNT – Local Control Annunciation Unit
CABLTV – Cable TV	ANNUNT - Local Control Annunciation Unit
CABLTV – Cable TV	ANNUNT – Local Control
CABLTV – Cable TV       D13-3         COMARN – New Communication,       D13-3         COMARX – Existing Communication,       D13-3         COMUGN – New Communication,       Underground         Underground       D13-3         COMUGX – Existing Communication,       Underground         Underground       D13-3         CONDFL – Flexible Conduit       D13-3         DUCTTR – Trolley Duct       D13-3         EPARN – New Electrical Primary,       Aerial         EPARX – Existing Electrical Primary,	ANNUNT – Local Control
CABLTV – Cable TV	ANNUNT – Local Control

CMHLN - New Communication	FL1X4 – 1 X 4 Light FixtureD13-15
ManholeD13-11	FL1X4B - 1 X 4 Light Fixture
CMHLX – Existing Communication	w/BatteryD13-15
Manhole	FL1X4C – 1 X 4 Light Fixture,
CMPANL - Communication PanelD13-11	ContinuousD13-15
CPLTM – Circuit Line TerminatorD13-11	FL2X2 – 2 X 2 Light FixtureD13-15
CPREC2 – Cathodic Protection	FL2X2B - 2 X 2 Light Fixture
RectifierD13-11	w/BatteryD13-15
CPSAN - Cathodic Protection	FL2X2C – 2 X 2 Light Fixture,
Sacrificial Anode	ContinuousD13-15
CPTEST – Cathodic Protection	FL2X4 – 2 X 4 Light FixtureD13-15
Test StationD13-12	FL2X4B = 2 X 4 Light Fixture
DBID – Ductbank ID Symbol	w/Battery
DGUYN – New Downguy	FL2X4C - 2 X 4 Light Fixture,
DGUYR – To Be Removed	ContinuousD13-16
	FLTN - New FloodlightD13-16
DownguyD13-12 DOROPN – Electric Door OpenerD13-12	FLTR - To Be Removed FloodlightD13-16
	FLTX – Existing FloodlightD13-16
DSTMKR – Runway Distance	FUSRAT – Fuse with RatingD13-16
Marker D13-12	GENRTR – GeneratorD13-16
DTHL – Displaced Threshold Light D13-12	GRDROD – Grounding RodD13-16
DXFMR – Dry Type TransformerD13-12	GROUND – Earth Ground
EHHLN – New Electrical Handhole D13-12	HAS1H – 1 Hot LegD13-17
EHHLX – Exist. Electrical Handhole .D13-13	HAS1N – 1 Neutral LegD13-17
ELBP1L – 1 Lamp Emergency Light .D13-13	HAS1S – 1 Switch LegD13-17
ELBP2L – 2 Lamp Emergency Light .D13-13	HAS2H – 2 Hot Legs
ELBP3L – 3 Lamp Emergency Light .D13-13	HAS2S – 2 Switch Legs
EMHLN – New Electrical ManholeD13-13	HAS3HN – 3 Hot, 1 Neutral LegD13-17
EMHLX – Exist. Electrical MaholeD13-13	HAS3MK – Hot/Neutral/GroundD13-17
EPBXN – New Electrical PullboxD13-13	HAS3S – 3 Switch LegsD13-17
EPBXX – Exist. Electrical PullboxD13-13	HAS4MK – 2 Hot/Neutral/GroundD13-17
ERECPT – Emergency ReceptacleD13-13	HAS5MK – 2 Hot/Neutral/GroundD13-17
EXITCM - Ceiling Mtd. Exit LightD13-14	
EXITLF - Exit Sign Lighted FaceD13-14	HASGND – 1 Ground Leg
EXITWM – Wall Mounted Exit	HEDASW – Aerial Service Weather
Sign LightD13-14	HeadD13-18
FAN – Ceiling FanD13-14	HLL – Hoverlane
FIXSPB - Surface Pendant Battery	HLLL – Hoverlane Limit Light
FixtureD13-14	HPIL – Helipad Inset LightD13-18
FIXSPQ — Surface Pendant Battery	HPPLEL – Elevated Helipad
Quartz RestrikeD13-14	Perimeter LightD13-18
FIXSPR – Surface Pendant Battery	HPPLSF – Semiflush Helipad
ReceptacleD13-14	Perimeter Light
FIXWM – Wall Mounted FixtureD13-14	HRUN1 – Home RunD13-18
FIXWMB - Wall Mounted Battery	HRUN2 – Home RunD13-19
FixtureD13-14	HRUN3 – Home Run
FL14WB - 1 X 4 Wall Mounted Fixture	JNBX – Junction BoxD13-19
w/BatteryD13-15	JNBXWM – Wall Mtd. Junction Box D13-19
FL14WM – 1 X 4 Wall Mounted	KNR – Keyed Note ReferenceD13-19
FixtureD13-15	KNRM – Keyed Note ReferenceD13-19
Appendix D A/E/C CADD Symbology	XXV

LEADER - Leader LineD13-19	with SwitchD	13-23
LITEBR – Emergency Battery Power	RECSPR - Special Purpose	
Light Remote	ReceptacleD	13-23
LTPLN - New Light PoleD13-19	RECSSM - Single Surf Mount	
LTPLR - To Be Removed Light Pole.D13-20	Floor OutletD	13-23
LTPLX – Existing Light PoleD13-20	REIL - Reil Light UnitD	13-23
LTSTRN - New Street Light Bracket. D13-20	RELYOP - Relay OP CoilD	
LTSTRR – To Be Removed Street	RESHTR - Elec. Resistance Heater D	13-24
Light BracketD13-20	RWCLL - Runway Center LightD	13-24
LTSTRX - Existing Street Light	RWEL - Runway End LightD	13-24
BracketD13-20	RWLEL - Elevated Runway Edge	
METREL – Electrical MeterD13-20	LightD	13-24
MICROW – Outdoor Microwave	RWLSF - Semiflush Runway Edge	
Transmit UnitD13-20	LightD	13-24
MOTRHP – MotorD13-20	S3ABC - 3 Three Way SwitchesD	
OBSTRL - Obstruction LightD13-20	SABC – 3 Single SwitchesD	13-24
PAPI – PAPI Light Unit	SECTAA - Sectionalizer Aerial	
PBFMC – Flush Mounted	AutoD	13-24
Panelboard CabinetD13-21	SENGV - Generic Volumetric	
PBSMC - Surface Mounted	SensorD	13-24
Panelboard/CabinetD13-21	SENULS - Ultrasonic SensorD	
PHOTO - Photoelectric RelayD13-21	SFL - Sequenced Flasher LightD	13-25
POLEAR - Aerial Pole w/GuyingD13-21	SLLN - New StreetlightD	13-25
POLEID - Pole Identification Symbol D13-21	SLLR - To Be Removed StreetlightD	13-25
PSHST1 – One Pushbutton Station D13-21	SLLX – Existing StreetlightD	13-25
PSHST2 – Two Pushbutton StationD13-21	SLREG - Constant Current	
PSHST3 – Three Pushbutton StationD13-21	TransformerD	13-25
PWRDVC – Power System DeviceD13-22	SM – Motor SwitchD	13-25
RCNC – Normally Closed Relay	SOUNDS - Sound SystemD	13-25
ContactD13-22	STP14 – 1 X 4 Strip, Surface Pendant	
RCNO – Normally Open Relay	RecessedD	13-25
ContactD13-22	STP14B – 1 X 4 Strip, Surface Pendant	
RECDFM – Floor Outlet, Double	Recessed w/BatteryD	13-26
Flush Mounted	STP18 – 1 X 8 Strip, Surface Pendant	
RECDSM - Double Surf Mount	RecessedD	13-26
Floor OutletD13-22	STP18B – 1 X 8 Strip, Surface Pendant	
RECDUP – Duplex ReceptacleD13-22	Recessed w/BatteryD	13-26
RECLOS – Recloser Aerial	SUBSTA – SubstationD	13-26
AutomaticD13-22	SWFLNC - Normally Closed	
RECPT2 – Special ReceptacleD13-22	Float SwitchD	13-26
RECQUA – Quadraplex ReceptacleD13-22	SWFLNO - Normally Open	
RECRAN – Receptacle RangeD13-23	Float SwitchD	13-26
RECSDP - Switched Duplex	SWFNC - Normally Closed	
ReceptacleD13-23	Flow SwitchD	13-26
RECSFM - Floor Outlet, Single	SWFNO - Normally Open Flow	
Flush MountedD13-23	SwitchD	13-26
RECSIN – Single ReceptacleD13-23	SWFONC - Normally Closed	
RECSNS – Single Receptacle	Foot-Operated SwitchD	13-26

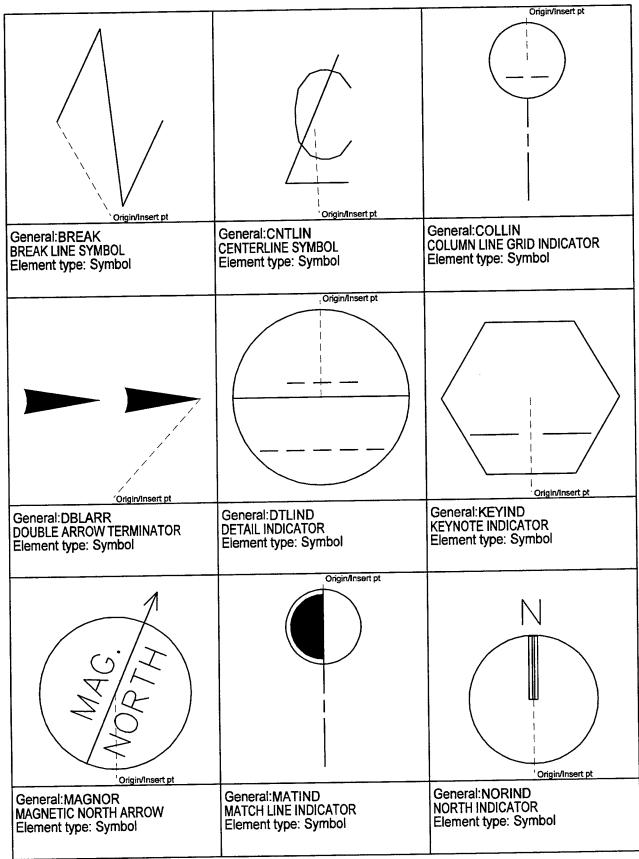
SWI2WY - Double Pole SwitchD13-27	TSTAT – ThermostatD13-31
SWI3WY - Three Way SwitchD13-27	TSVLDT – Traffic Signal Vehicle
SWI4WY - Four Way SwitchD13-27	Loop DetectorD13-31
SWICB - Circuit BreakerD13-27	TVOUT - Television OutletD13-31
SWIDIS - Disconnect SwitchD13-27	TWCLL - Taxiway Centerline Light D13-31
SWIDM1 – DimmerD13-27	TWELEL - Elevated Taxiway End
SWIDM2 - Dimmer SwitchD13-27	LightD13-31
SWIDUR - Duress SwitchD13-27	TWELSF – Semiflush Taxiway End
SWIFUS - Fused SwitchD13-27	LightD13-31
SWIKEY - Key-Operated SwitchD13-28	TWGSGN - Tawiway Guidance Sign D13-31
SWILVM - Low Voltage	TWLEL - Elevated Taxiway Edge
Master SwitchD13-28	LightD13-31
SWITCH - Single Pole SwitchD13-28	TWLSF – Semiflush Taxiway Edge
SWITIM - Timer Operated SwitchD13-28	LightD13-31
SWLAMP - Lamp Holder Pole	UTPLN – New Pole
SwitchD13-28	UTPLR - To Be Removed PoleD13-32
SWLNC - Normally Closed	UTPLX – Existing PoleD13-32
Limit SwitchD13-28	WINDCN – WindconeD13-32
CYTT 310 31 11 0	WYECON – XFMR Wye
Limit SwitchD13-28	Connection
SWMULT – Multiposition SwitchD13-28	WYEXGC XFMR Grounded
SWPADN - New SwitchpadD13-28	Connection
SWPADX - Existing SwitchpadD13-29	XFRPLN - New XFMR PoleD13-32
SWPCM - Ceiling Mounted	XFRPLR - To Be Removed XFMR
Pull SwitchD13-29	PoleD13-32
SWPCOI – Pressure Switch-Close	XFRPLX – Existing XFMR PoleD13-32
on IncreaseD13-29	XFRPMN – New XFMR PadD13-33
SWPOOI - Pressure Switch-Open	XFRPMR - To Be Removed XFMR
on IncreaseD13-29	Pad
SWSBRK – Single Break SwitchD13-29	XFRPMX – Existing XFMR PadD13-33
SWTANC – Normally Closed Temp	
Activated SwitchD13-29	
SWTANO - Normally Open Temp	Telecommunications
Activated SwitchD13-29	
SWTDNC – Normally Closed Time	Lines
Delay SwitchD13-29	
SWTDNO – Normally Open Time	FIBOPT – Fiber Optics LineD14-3
Delay SwitchD13-29	WIREWY – WirewayD14-3
TDZL – Touchdown Zone LightD13-30	
THL - Threshold LightD13-30	Symbols
TOWER – Transmission TowerD13-30	D14.5
TRFSIG – Traffic Signal Mast ArmD13-30	GRDROD – Grounding RodD14-7
TSCTRL – Traffic Signal ControllerD13-30	RECDC – Data Communication Wall
TSHEAD – Traffic Signal HeadD13-30	ReceptacleD14-7
TSPBX - Traffic Signal PullboxD13-30	RECDCF – Data Communication Floor
TSPHS – Traffic Signal Phase #,	ReceptacleD14-7
ThruD13-30	RECTDF – Telephone/Data Floor
TSPHT – Traffic Signal Phase #,	ReceptacleD14-7
TurnD13-30	
nendix D A/E/C CADD Symbology	XXVII

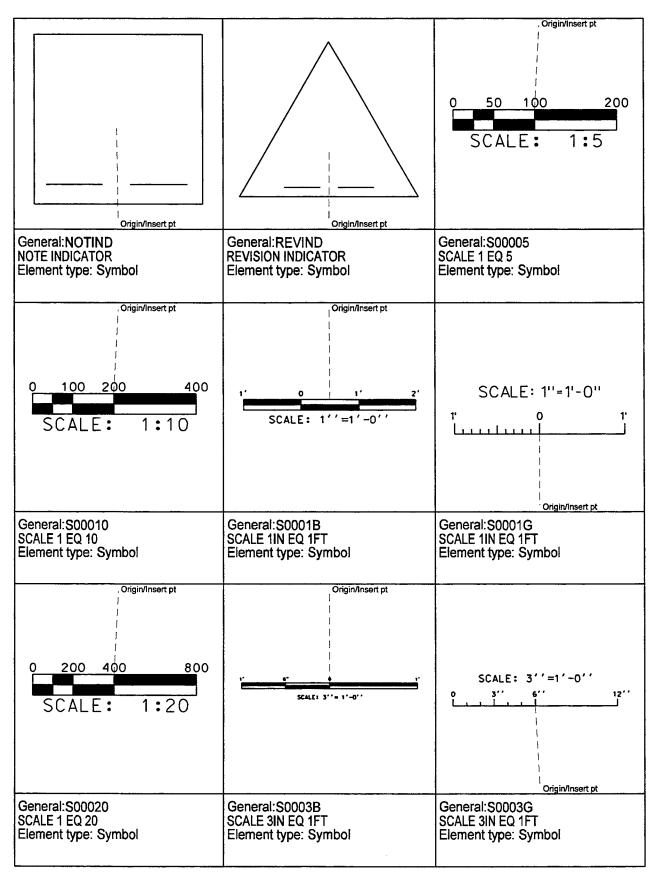
RECTDW – Telephone/Data Wall	
Receptacle	D14-7
RECTEF – Telephone Floor	
Receptacle	D14-7
RECTEL - Telephone Wall Recep	tacleD14-7
TROOTH - Telephone Booth	D14-7

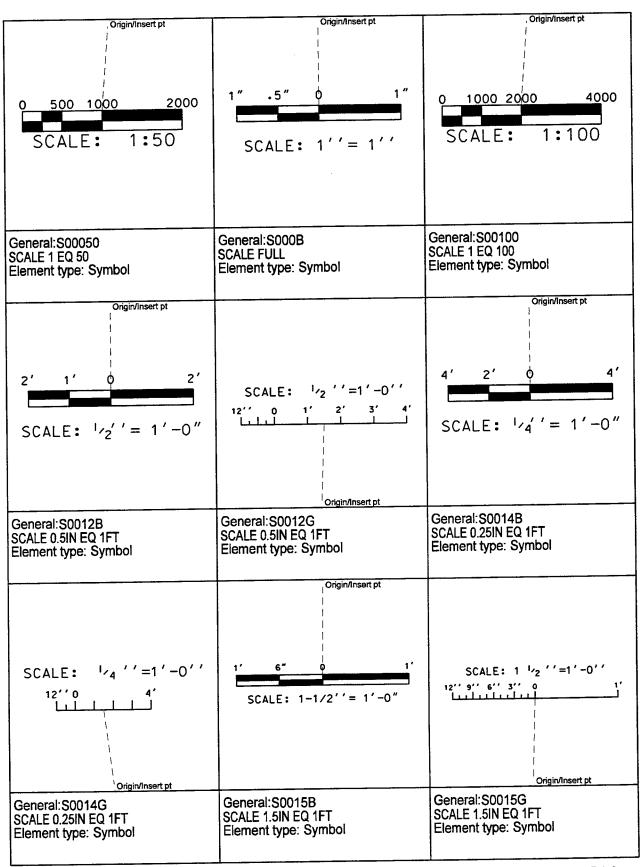
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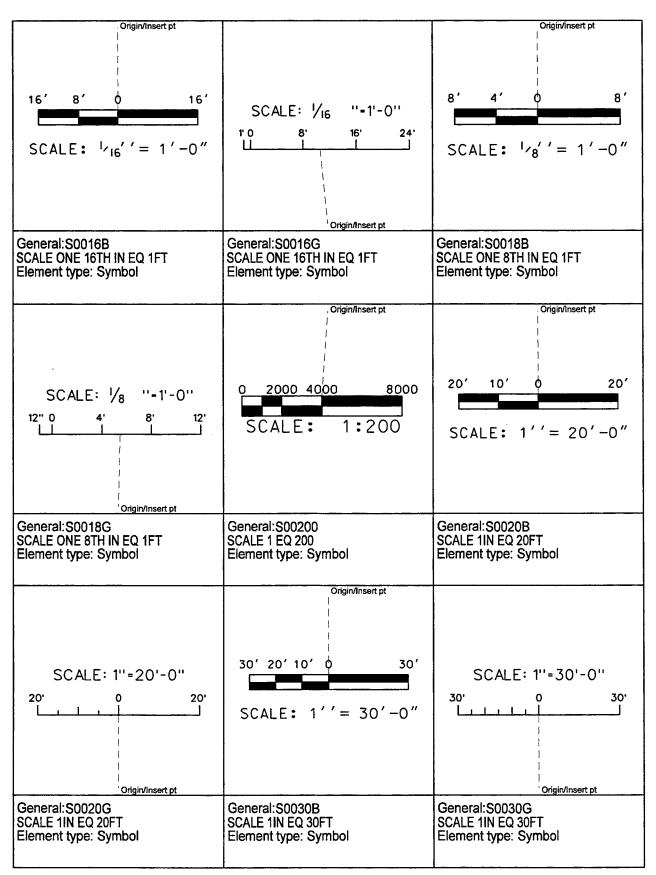
General:DEMOLN DEMOLITION LINE Element type: Line	

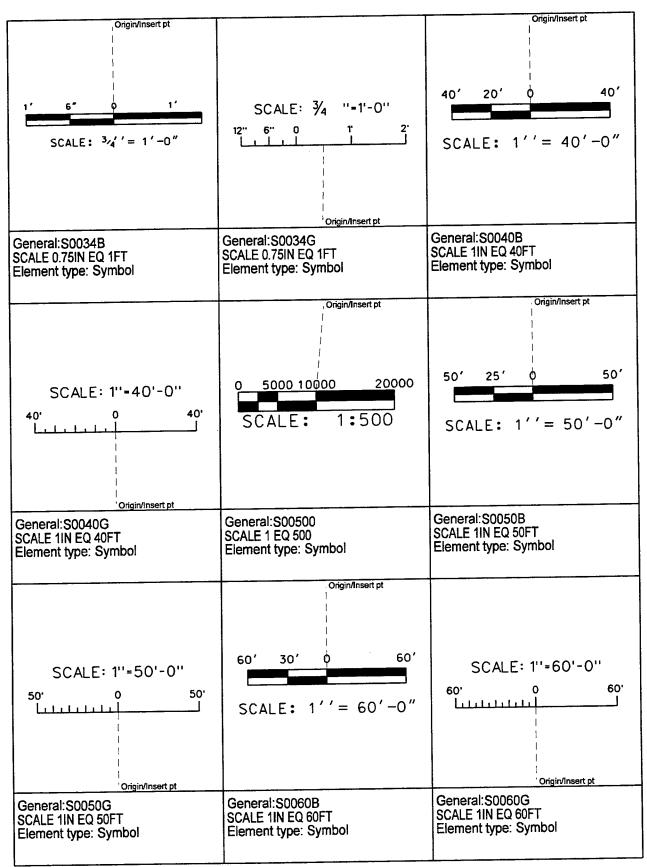
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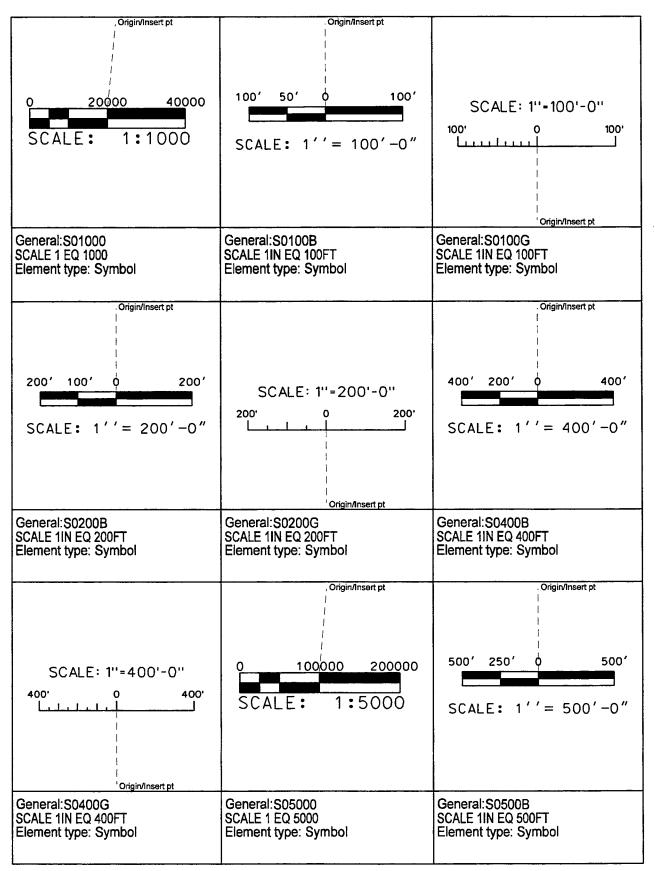


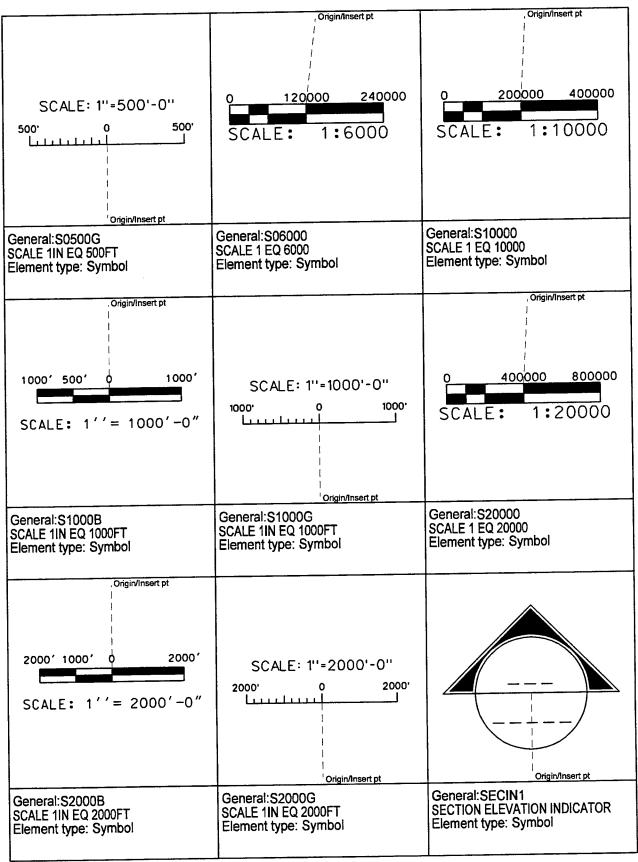


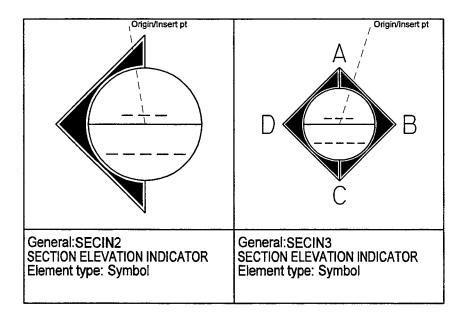








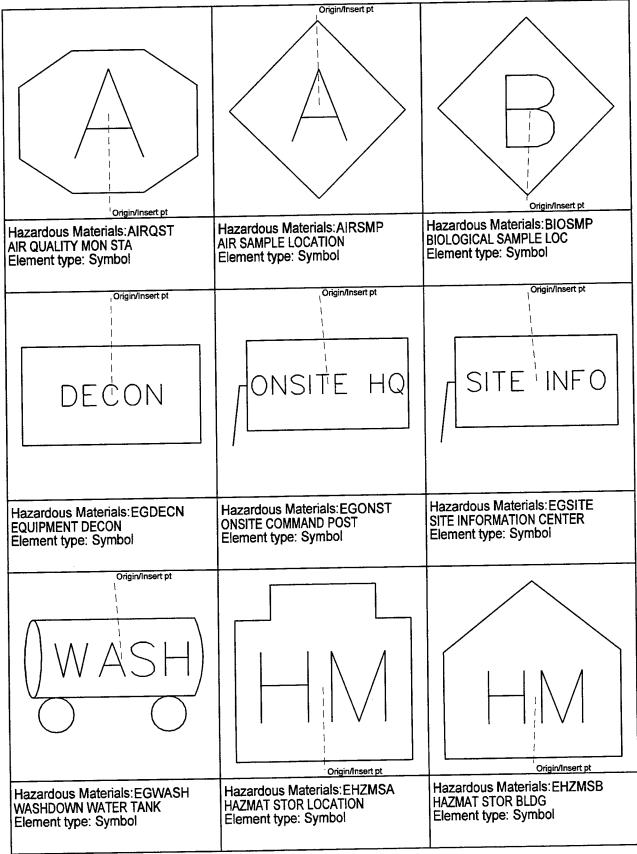


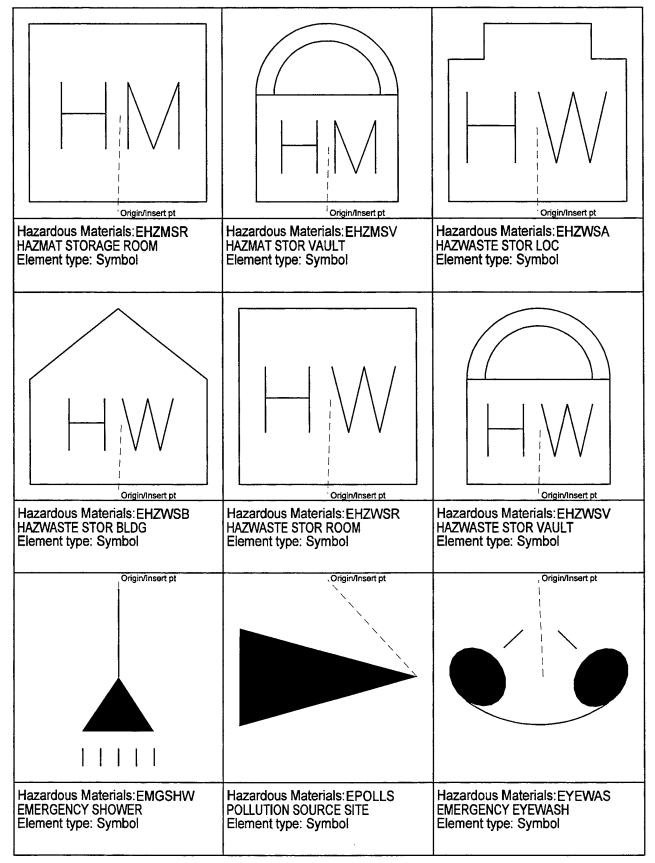


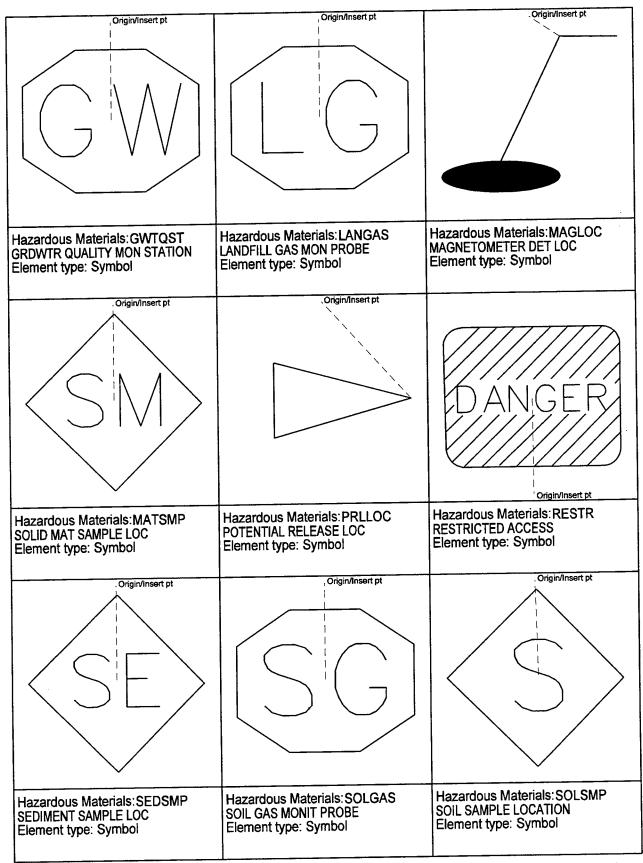
#### 2 Hazardous Materials Lines Library

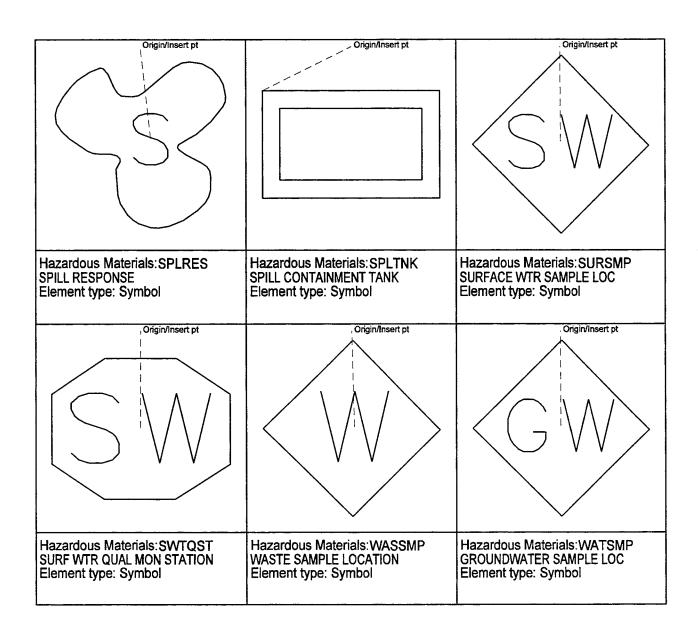
—— на Z	•
Hazardous Materials:HAZMAT HAZARDOUS MATERAL TRAN Element type: Line	

## 2 Hazardous Materials Symbols Library









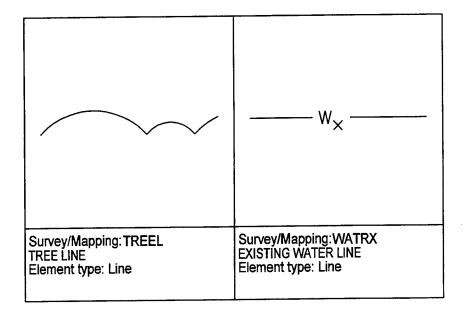
#### 3 Survey/Mapping Lines Library

	11111111111111111111111111111111111111	111111111111111111111111111111111111111
Survey/Mapping:16THLN SIXTEENTH LINE Element type: Line	Survey/Mapping:BARDIT DITCH BARRIER Element type: Line	Survey/Mapping:BARDTB DITCH AND BERM BARRIER Element type: Line
<del>-∞ →</del> S <del>-∞</del>	<del>-&gt;4</del> M <del>&gt;4</del> •	
Survey/Mapping: BARGEN GENERIC SECURITY BARRIER Element type: Line	Survey/Mapping:BARMAS SECURITY MASONRY BARRIER Element type: Line	Survey/Mapping: CMP12 CMP 12IN DIA LINEAR Element type: Line
~~~	—— C <sub>×</sub>	C <u>x</u>
Survey/Mapping: CMPU12 CMPU 12IN DIA LINEAR Element type: Line	Survey/Mapping:COMARX EXIST COMMUNCATION AERIAL Element type: Line	Survey/Mapping: COMUGX EXIST COMMUNCATION UNDERG Element type: Line

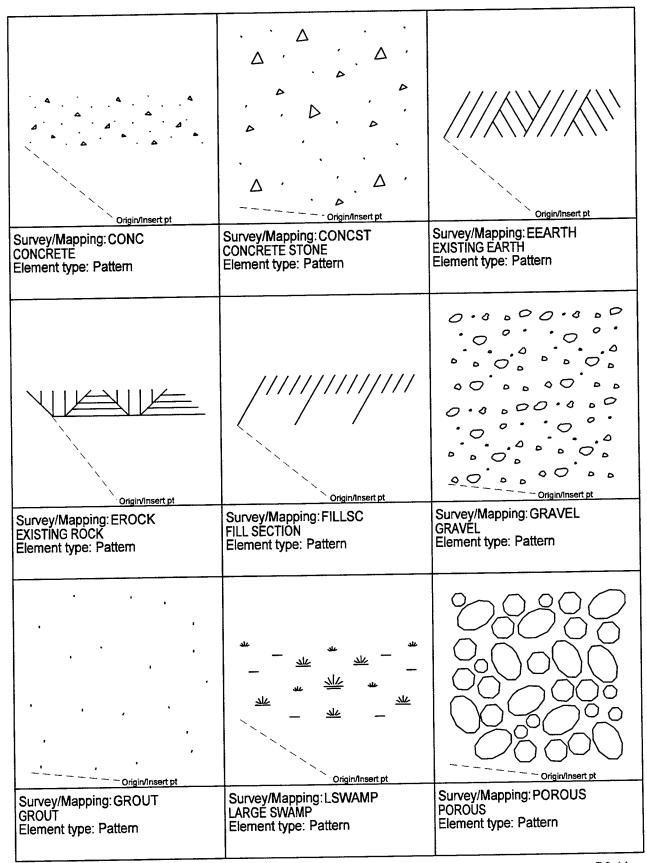
o	C P	
Survey/Mapping: CONLMT	Survey/Mapping:CULVRT	Survey/Mapping: DITCH
CONSTRUCTION LIMIT	CULVERT PIPE	DITCH LINE
Element type: Line	Element type: Line	Element type: Line
——E <sub>×</sub> ——	——E <u>x</u>	E <sub>x</sub>
Survey/Mapping: EPARX	Survey/Mapping:EPUGX	Survey/Mapping:ESARX
EXIST ELEC AERIAL PRIMARY	EXIST ELEC UNDERG PRIMARY	EXIST ELEC AERIAL SEC
Element type: Line	Element type: Line	Element type: Line
E <u>u</u>	X	×
Survey/Mapping: ESUGX	Survey/Mapping:EUDUCX	Survey/Mapping:FENCE
EXIST ELEC UNDERG SEC	EXIST UNDERGROUND DUCT BANK	FENCE
Element type: Line	Element type: Line	Element type: Line

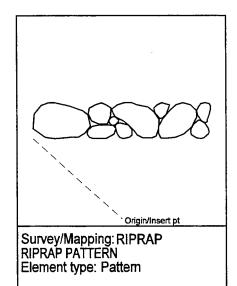
——— F O ———	——— F	—— F O R ——
Survey/Mapping:FIBOPT FIBER OPTICS LINE Element type: Line	Survey/Mapping:FIRE FIRE PROTECTION WATR SUPPLY Element type: Line	Survey/Mapping:FUELOR FUEL OIL RETURN Element type: Line
——FOS——	—— F O V ——	
Survey/Mapping: FUELOS FUEL OIL SUPPLY Element type: Line	Survey/Mapping:FUELOV FUEL OIL TANK VENT Element type: Line	Survey/Mapping: GUARD GUARD RAIL Element type: Line
	—— I N W ———	LPG
Survey/Mapping:INDXDC INDEX DEPTH CONTOUR Element type: Line	Survey/Mapping:IWASTE INDUSTRIAL WASTE Element type: Line	Survey/Mapping:LIQPET LIQUID PETROLEUM GAS Element type: Line

	——— N P W ———	——— G <sub>×</sub> ———
Survey/Mapping:MINRDC MINOR DEPTH CONTOUR Element type: Line	Survey/Mapping:NONPOT NONPOTABLE WATER Element type: Line	Survey/Mapping:NTGASX EXISTING NATURAL GAS Element type: Line
	———Р [. ———	<del>- - - - - - - - - - - - - - - - - - - </del>
Survey/Mapping: PROJBL PROJECT BOUNDARY LINE Element type: Line	Survey/Mapping:PROPL PROPERTY LINE Element type: Line	Survey/Mapping:RAILS SINGLE RAILROAD Element type: Line
	S S <sub>X</sub>	S D <sub>×</sub>
Survey/Mapping:RTOFWY RIGHT OF WAY Element type: Line	Survey/Mapping:SSWAFX EXISTING SANITARY SEWER Element type: Line	Survey/Mapping: STRAFX EXISTING STORM DRAIN Element type: Line

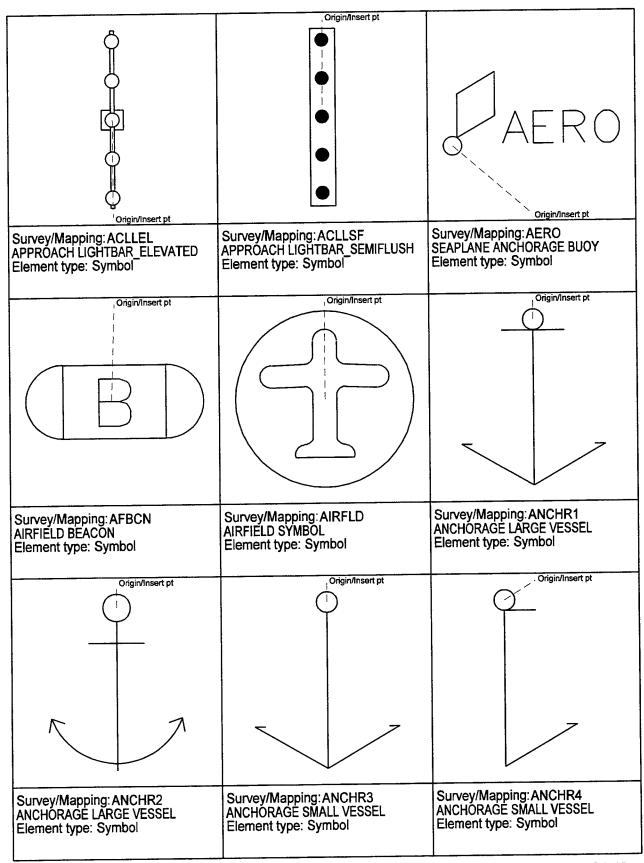


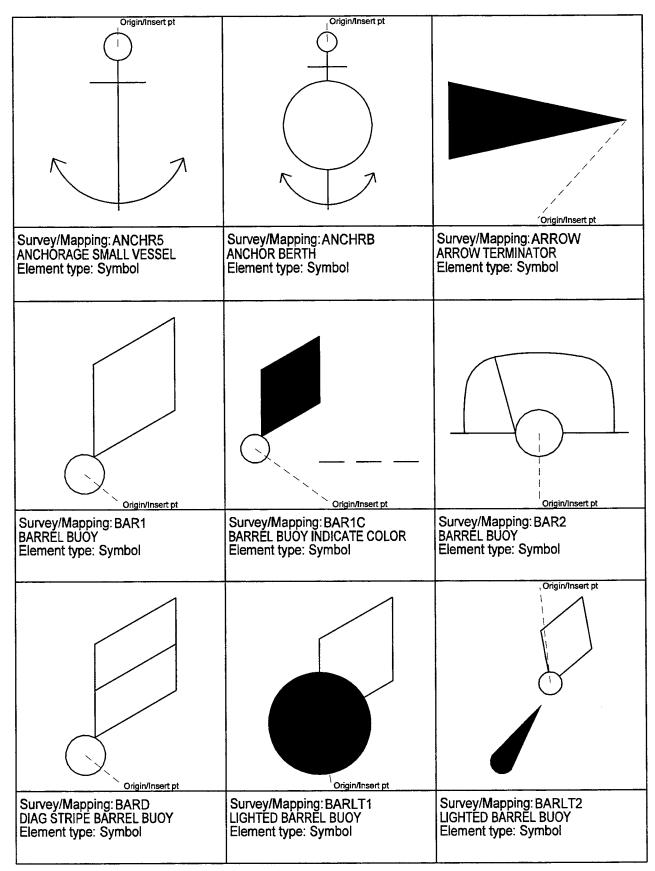
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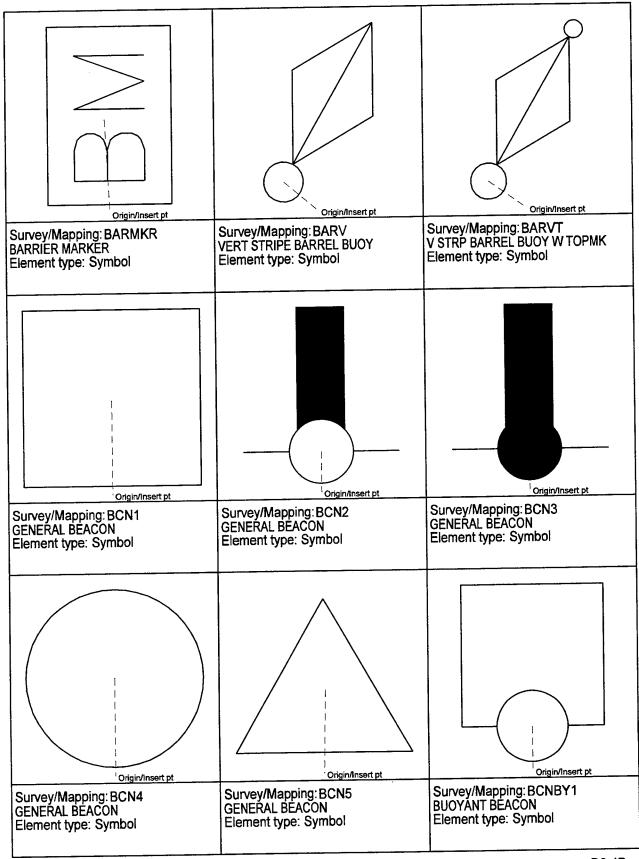


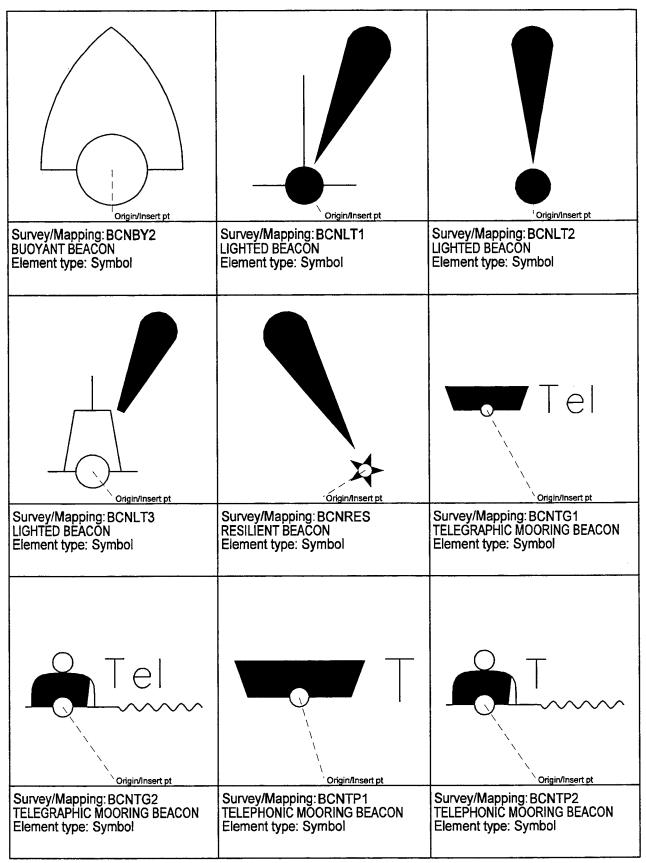


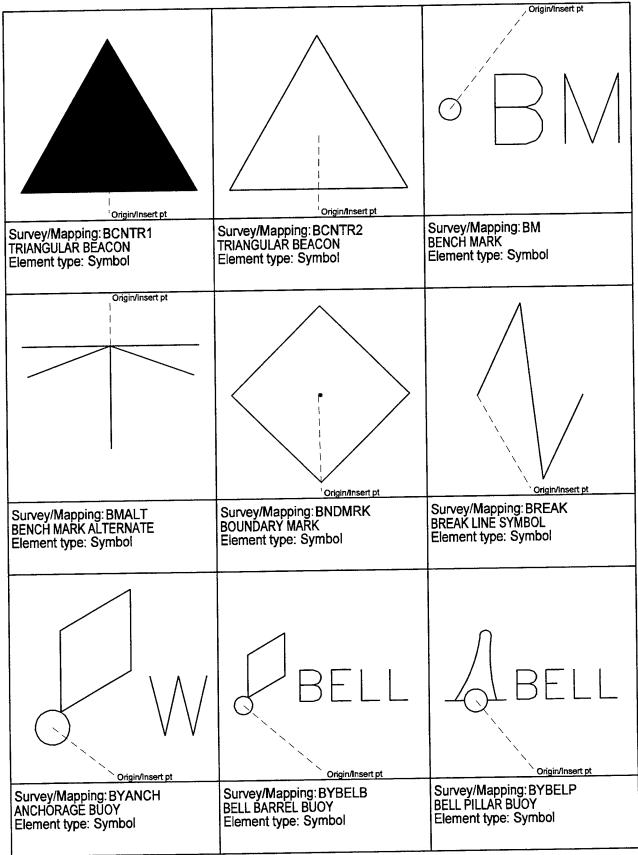
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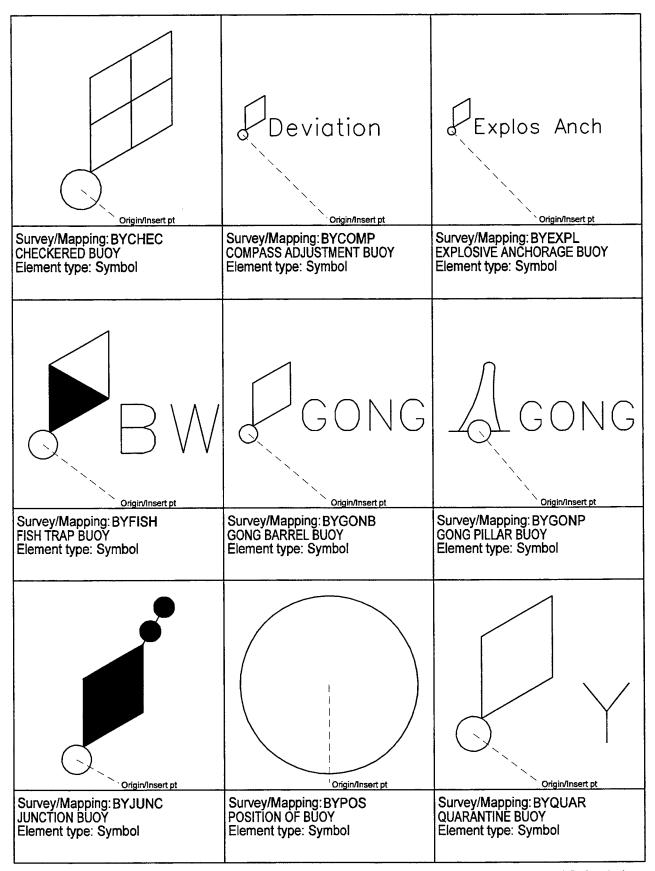


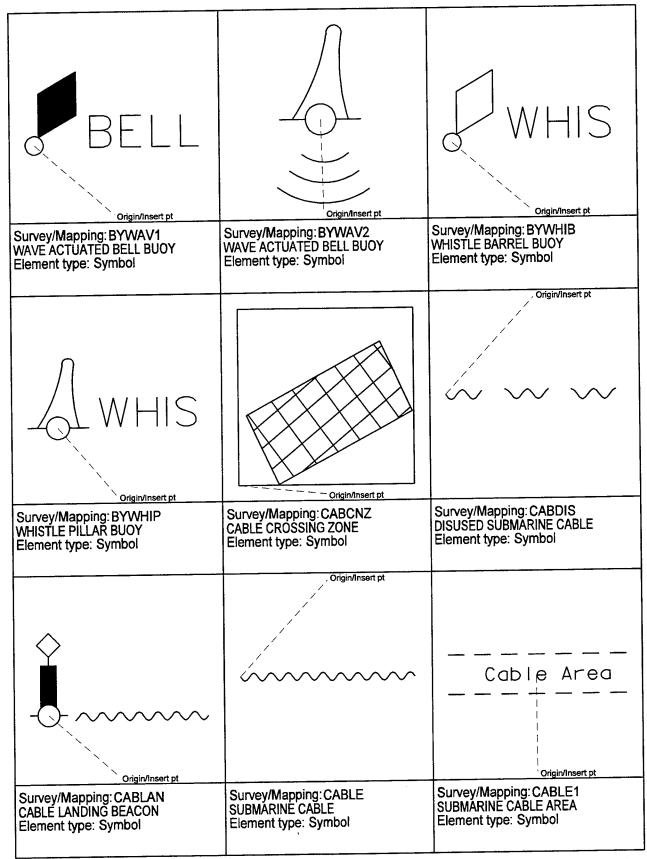


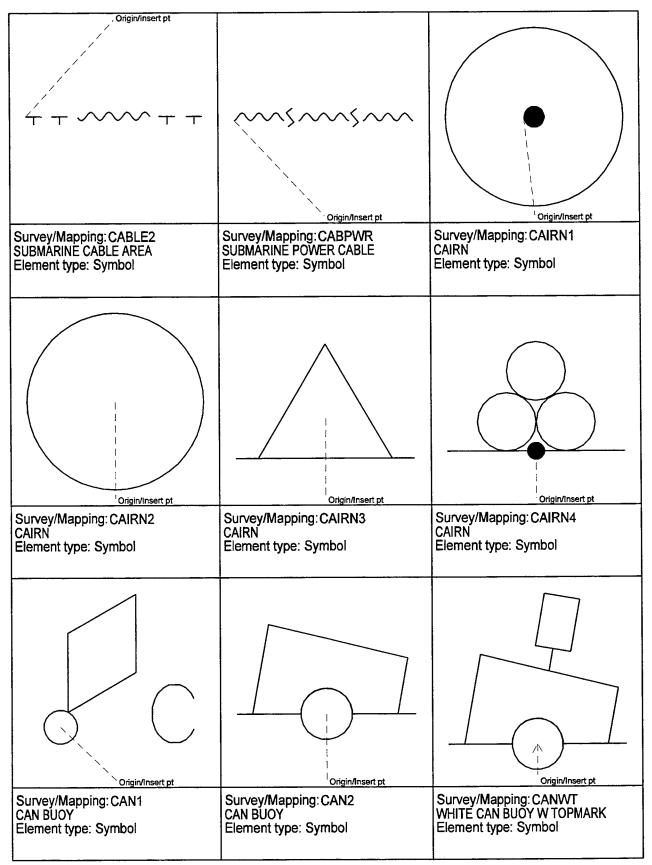


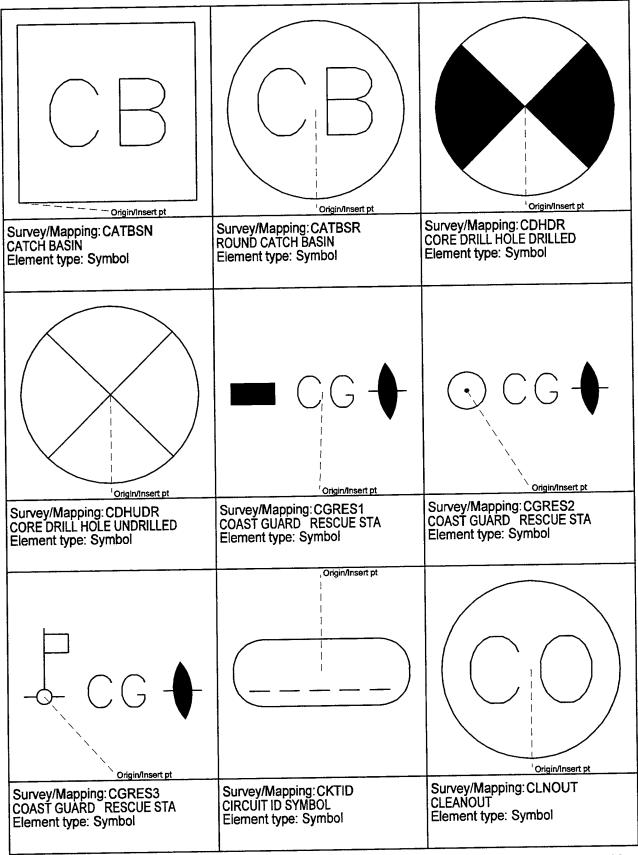


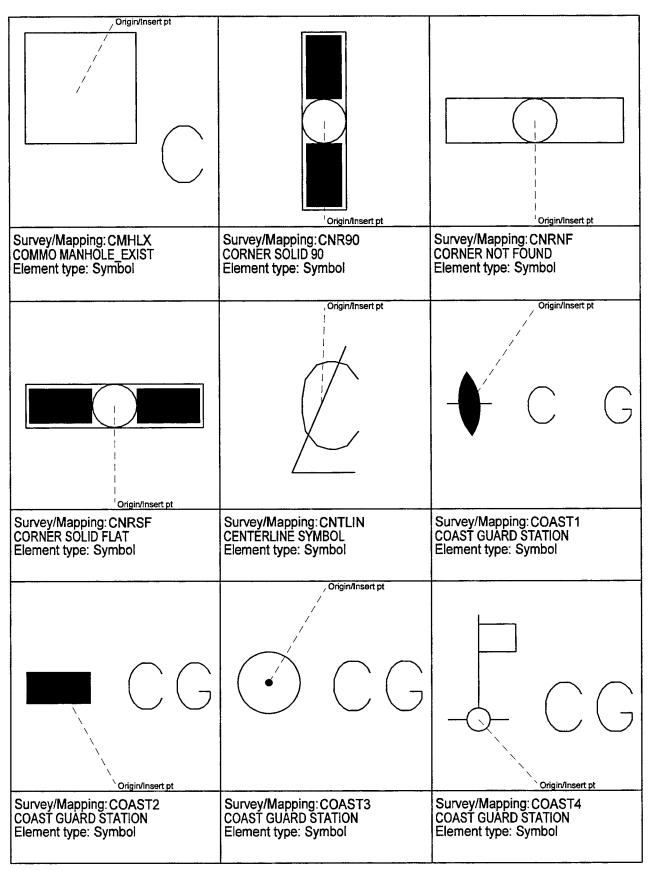


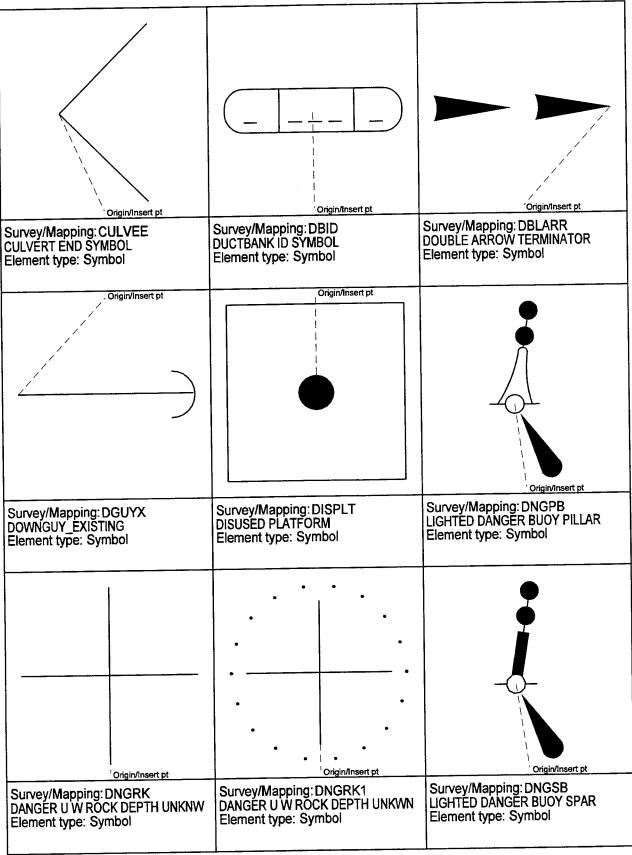


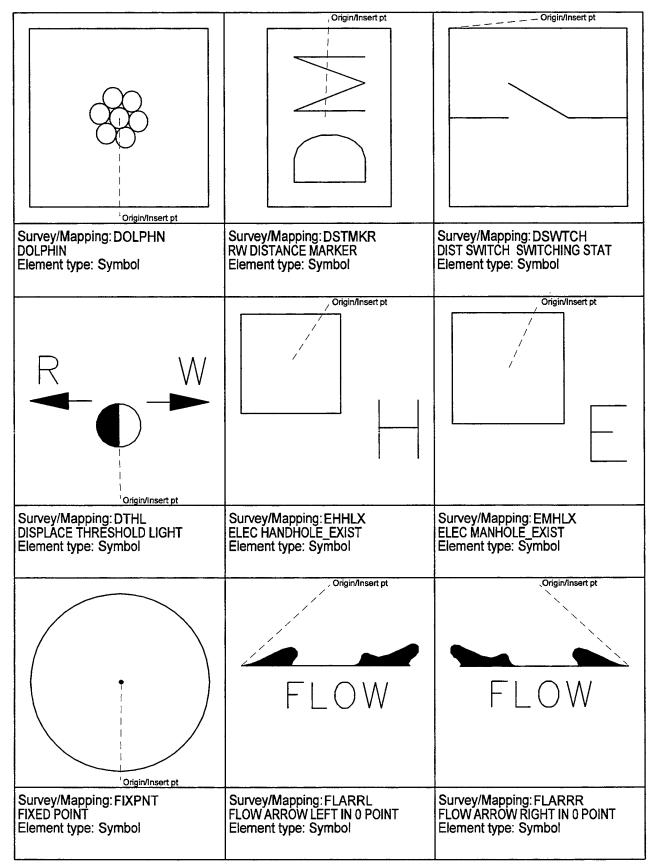


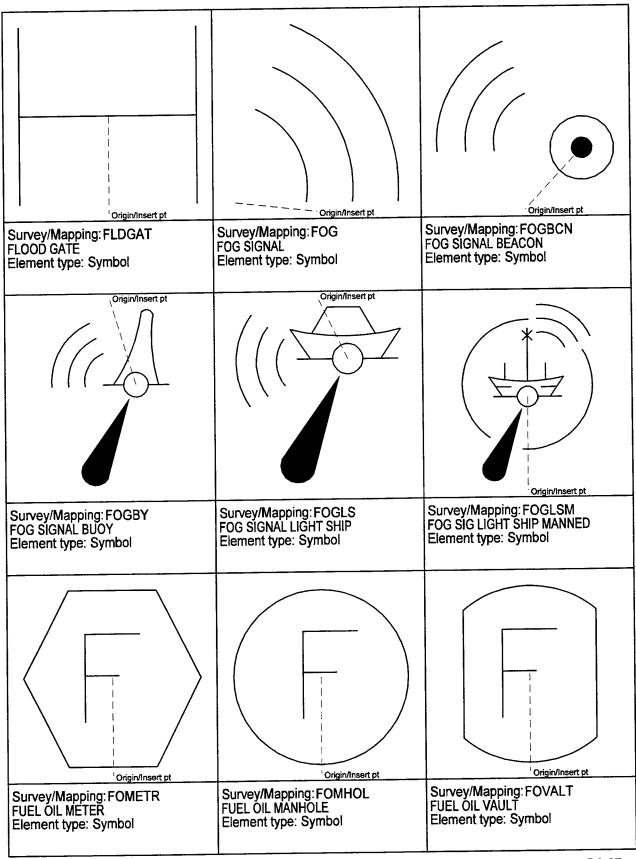


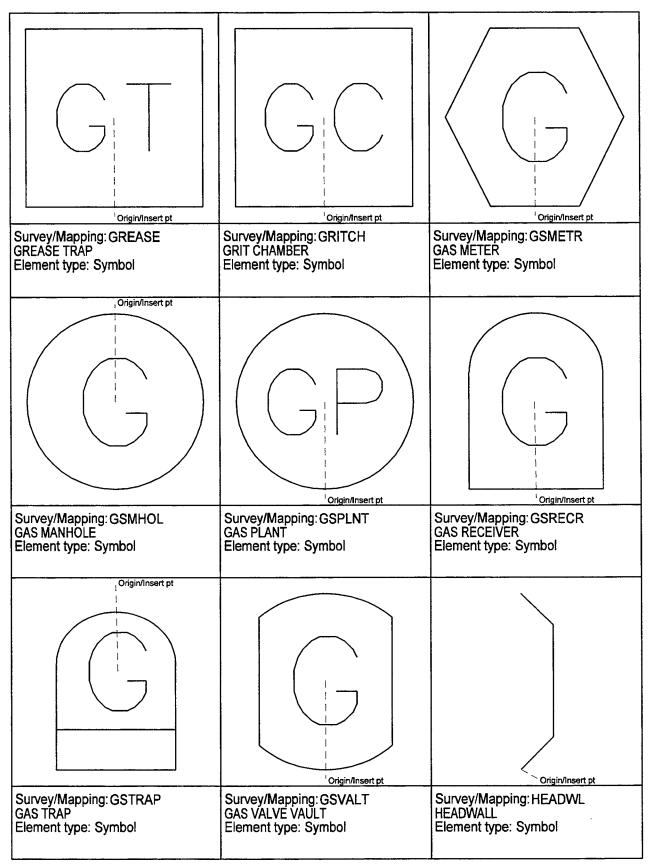


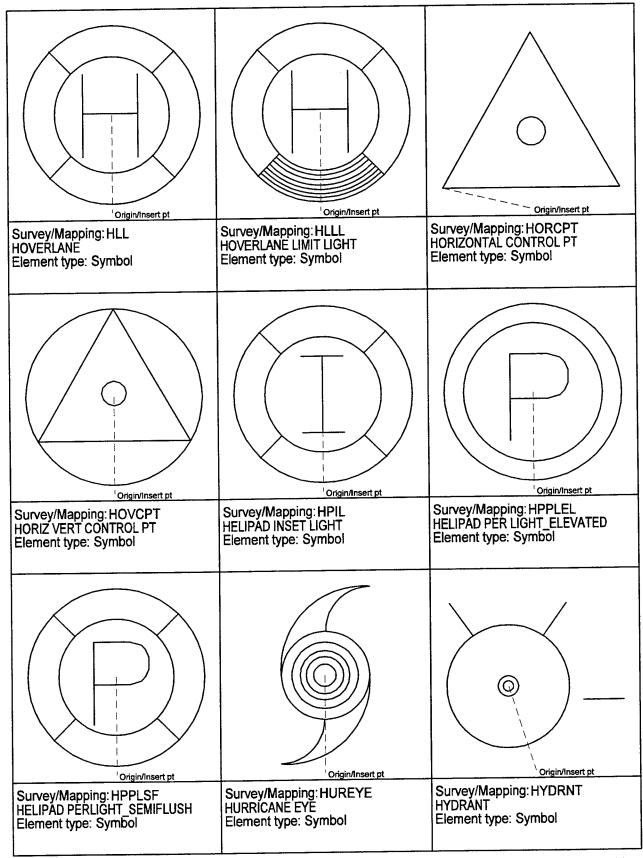


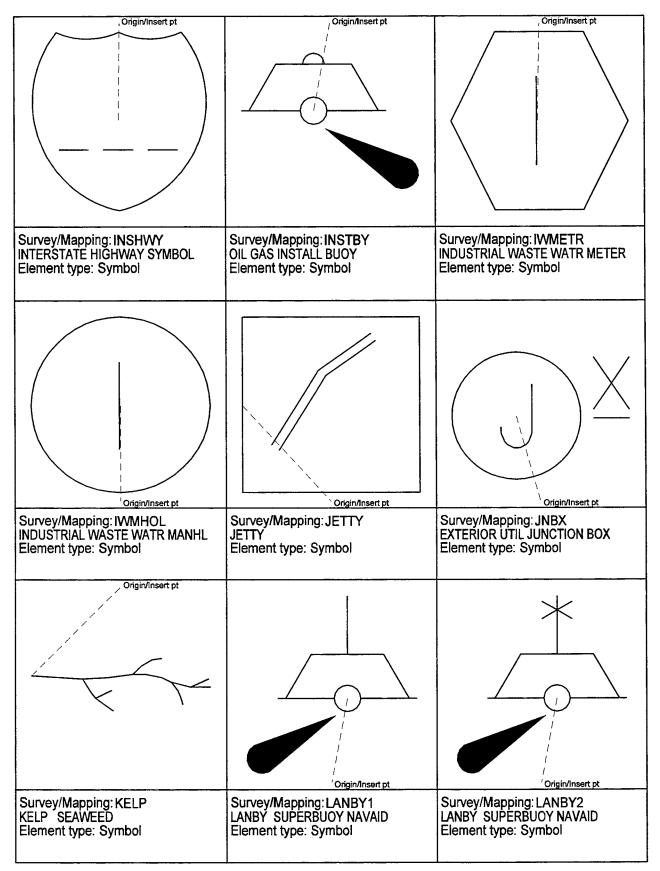


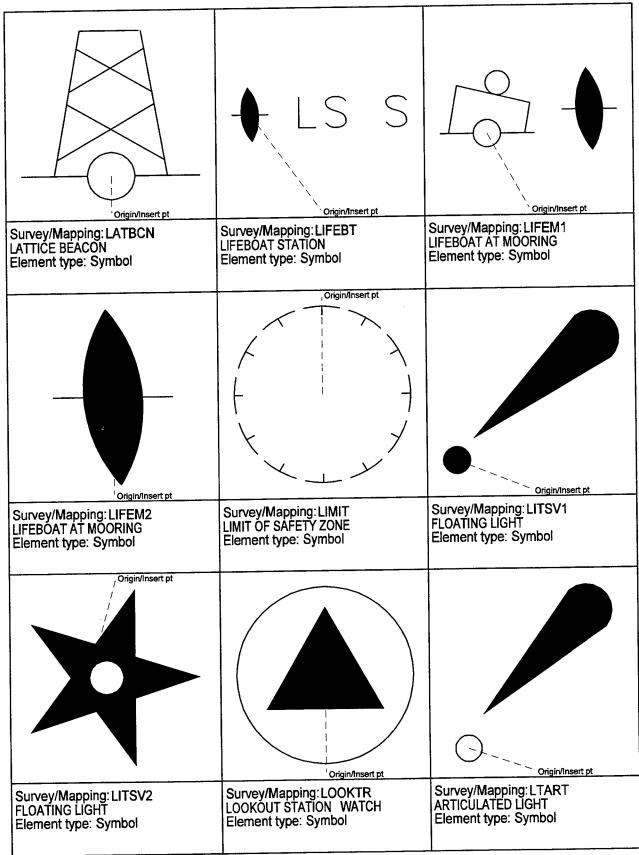


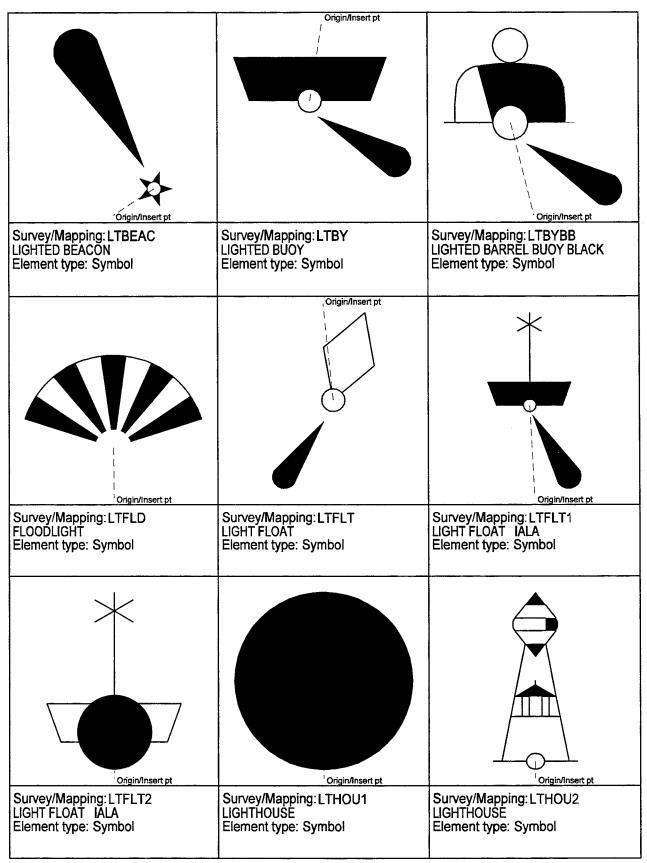


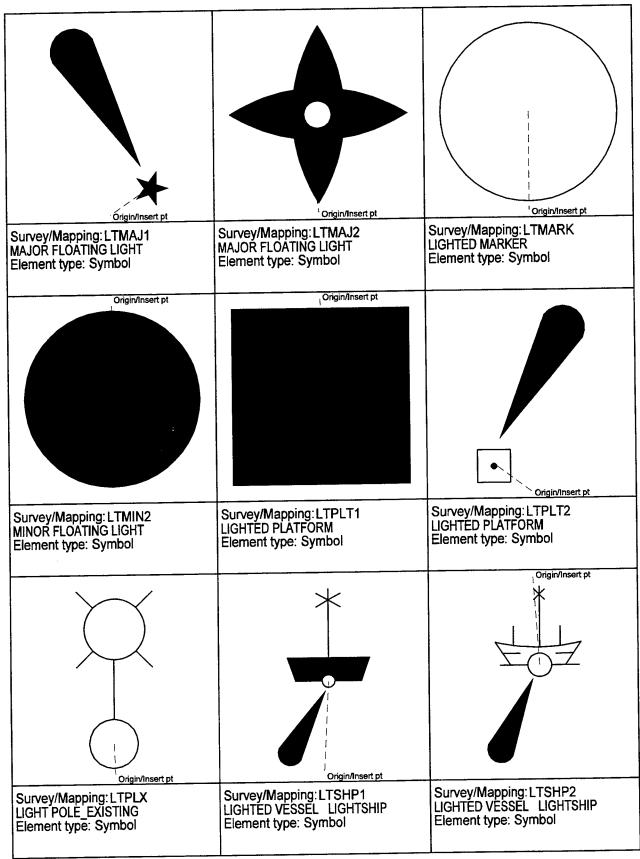


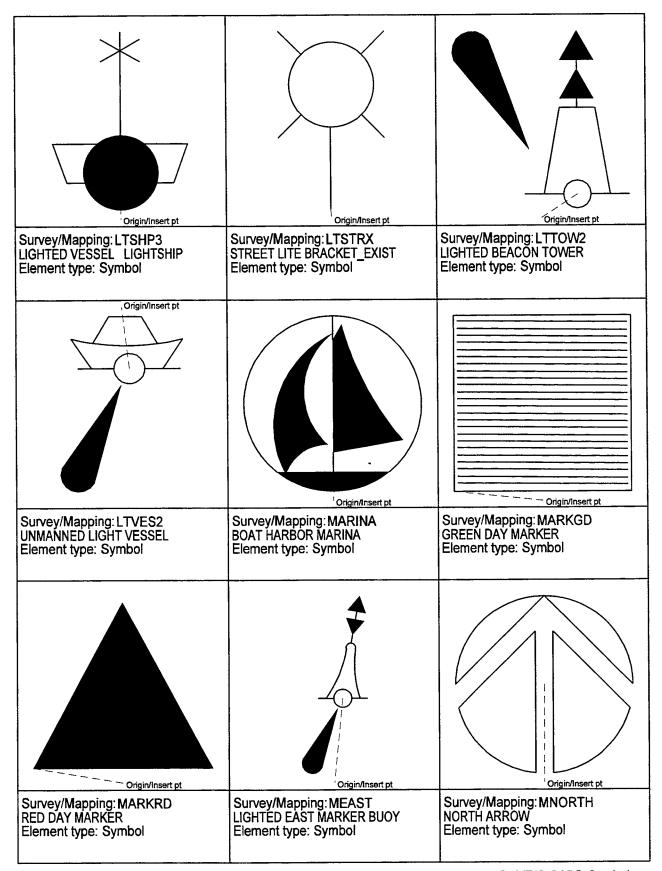


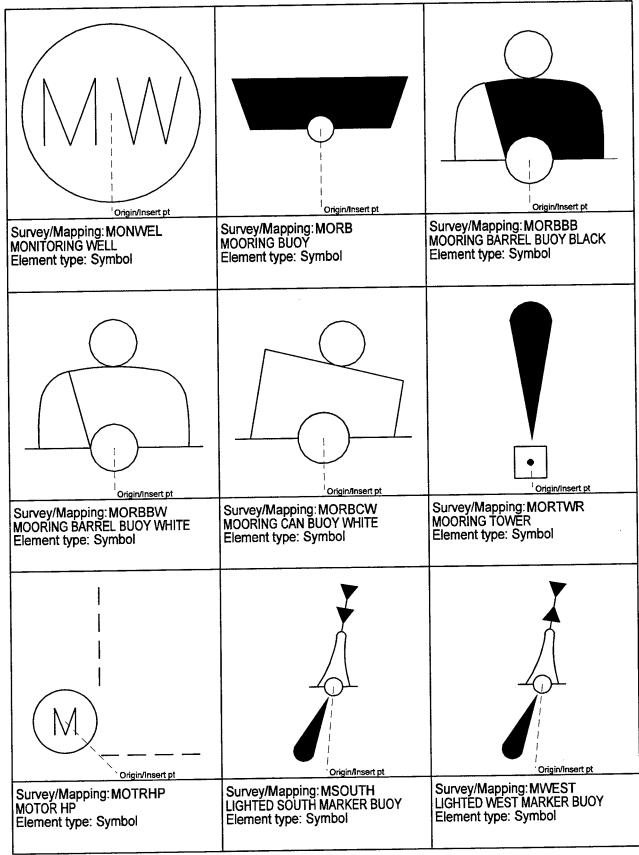


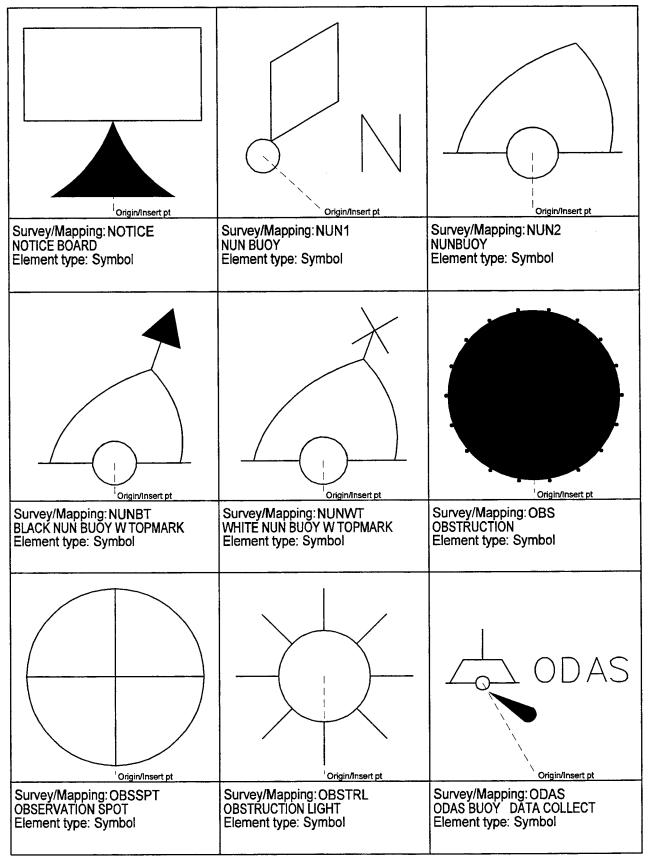


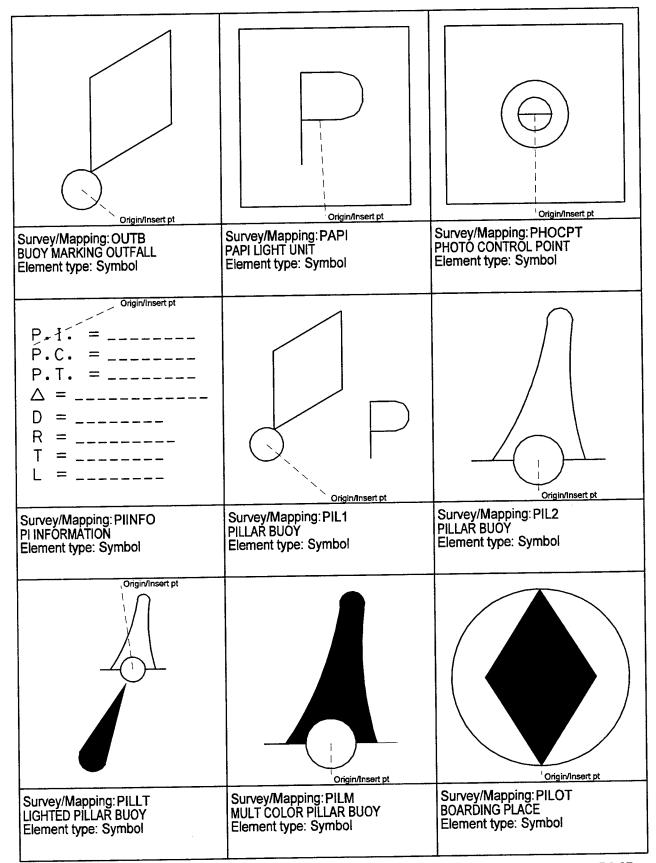


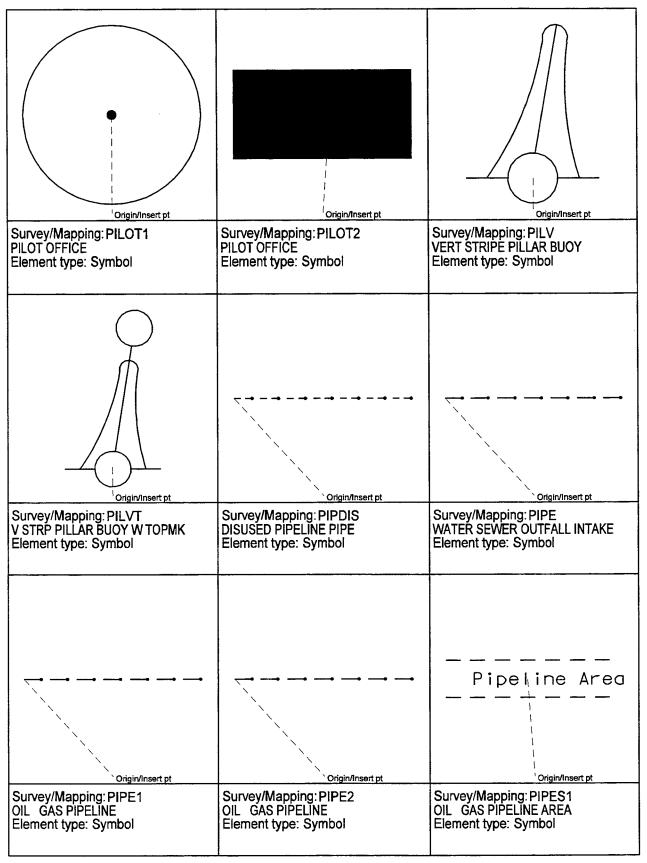


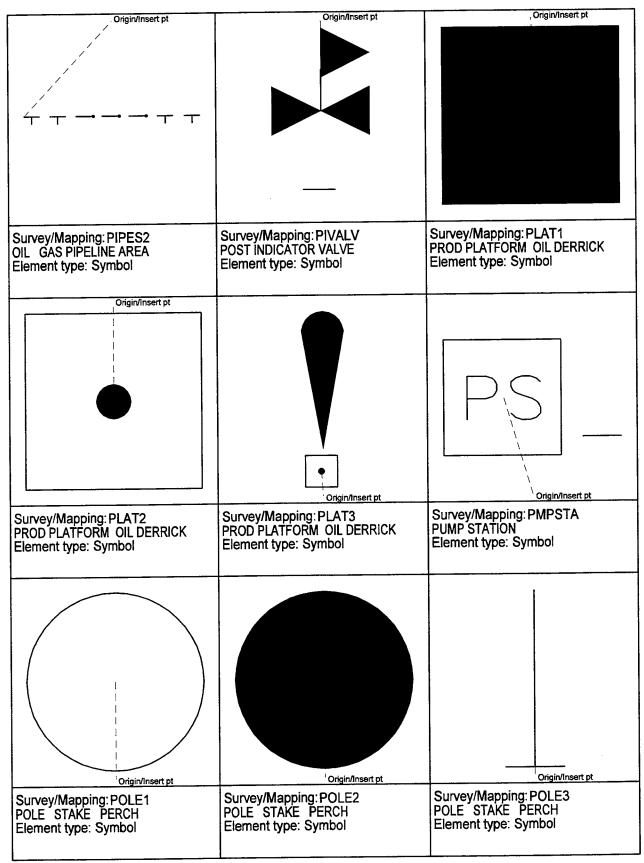


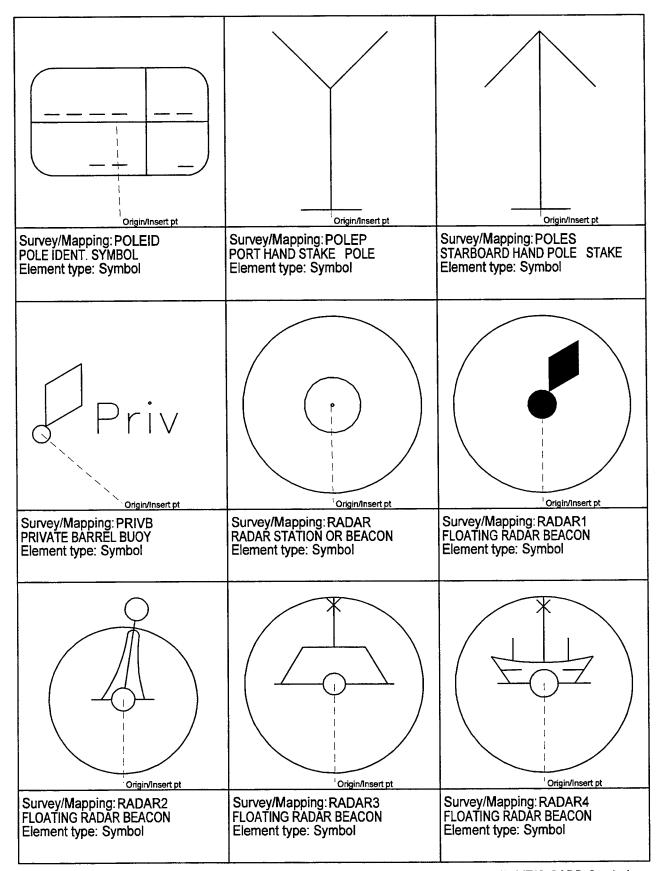


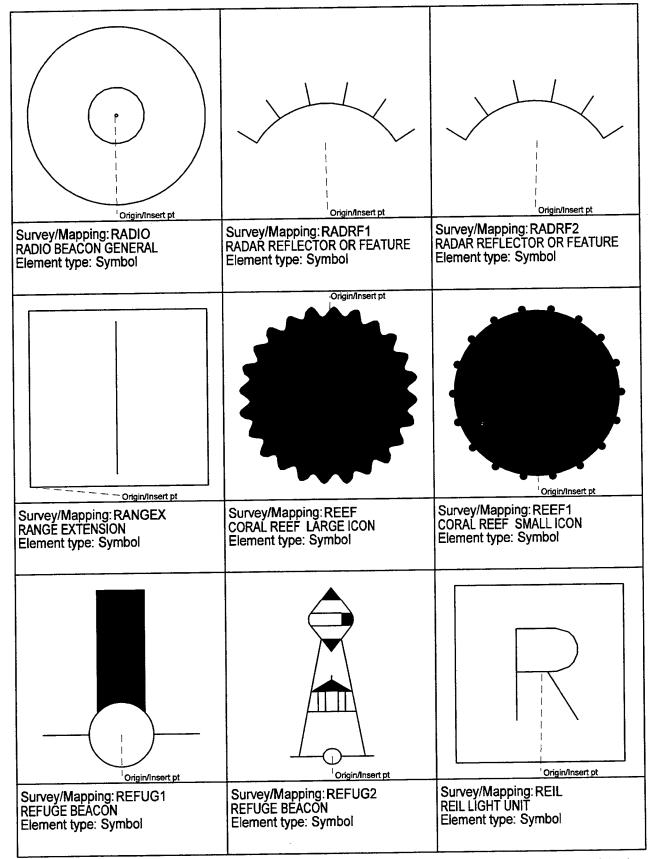


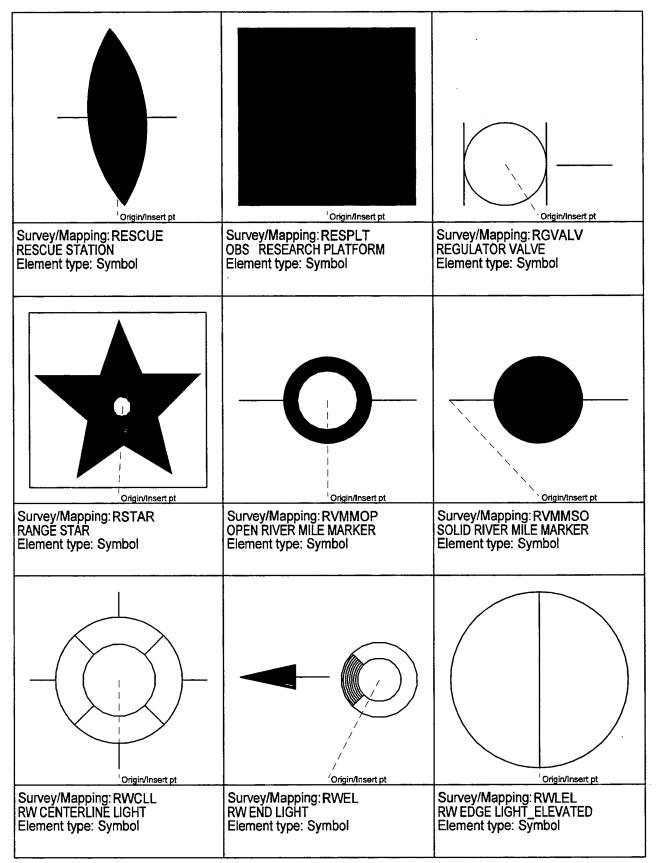


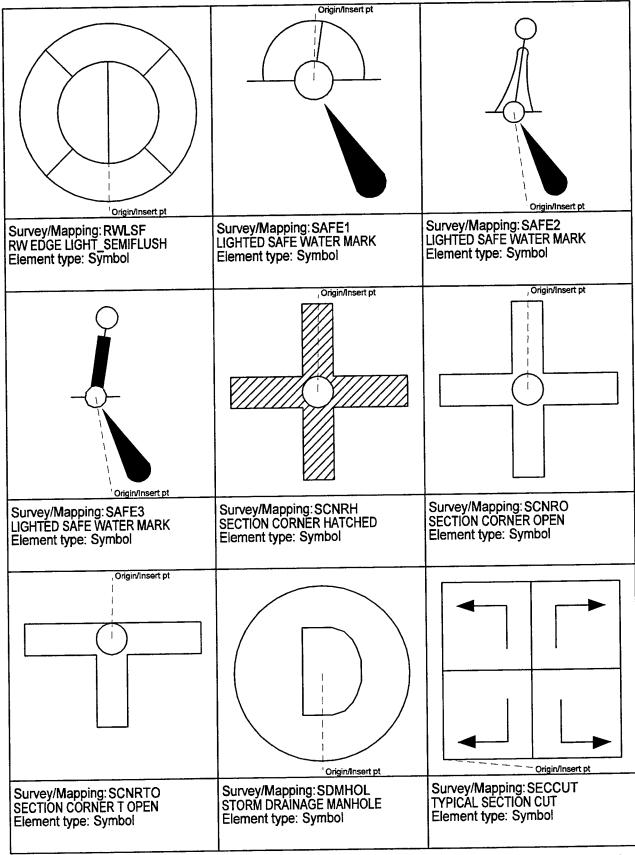




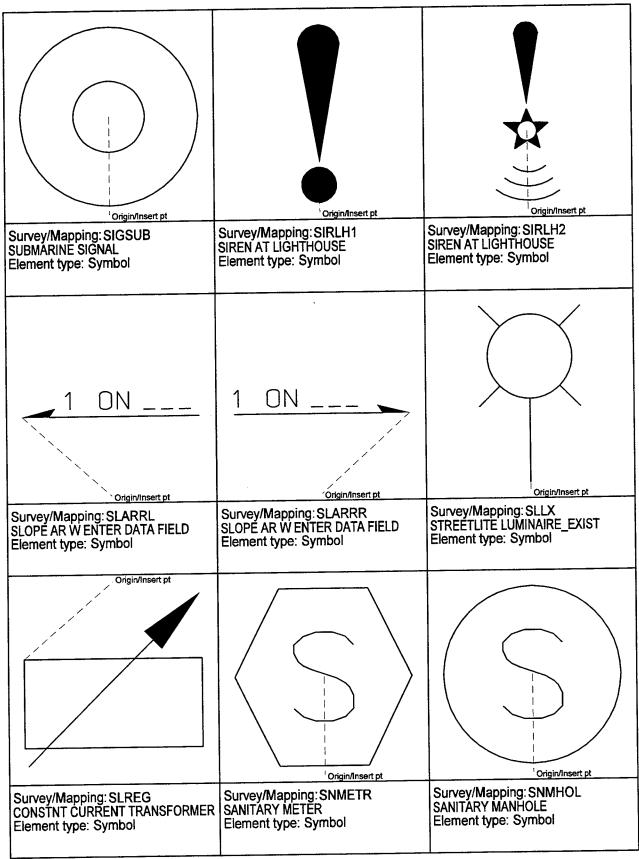


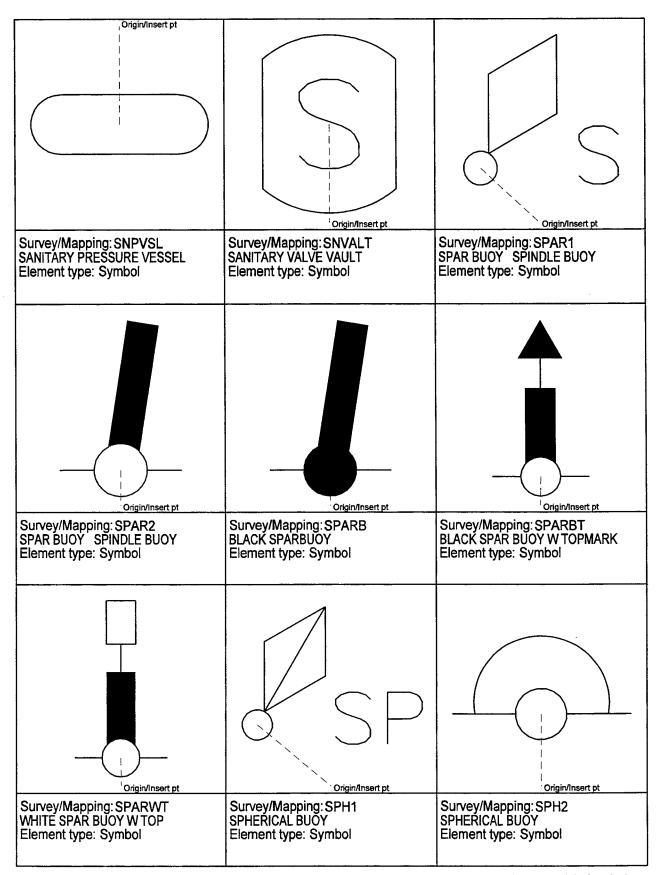


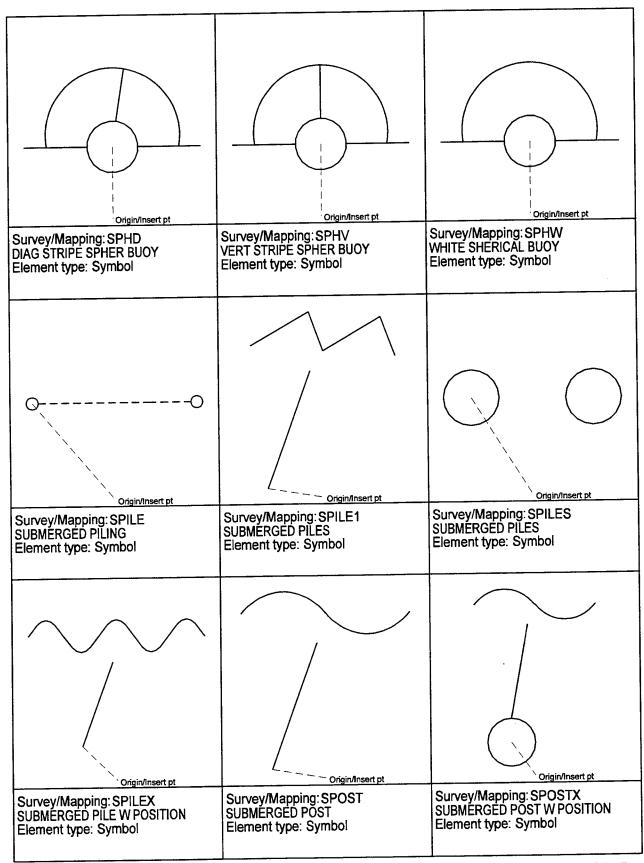


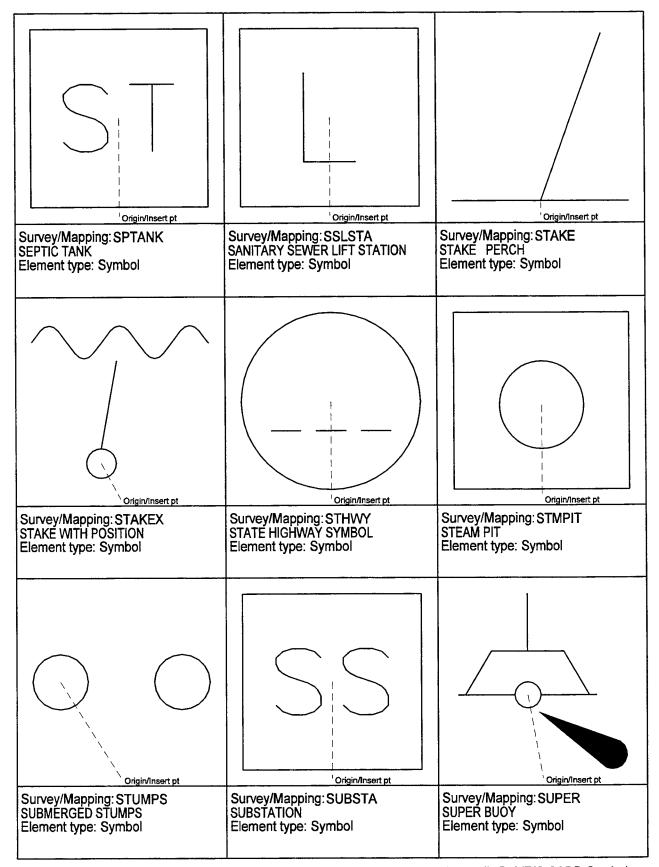


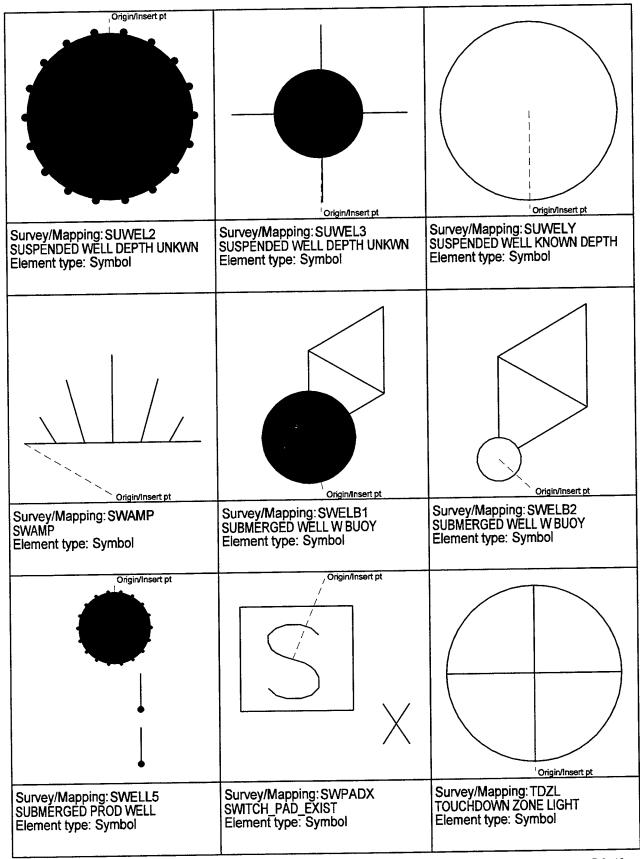
, Origin/Insert pt	I	
	Origin/Insert pt	Origin/Insert pt
Survey/Mapping: SFL SEQUENCED FLASHER LIGHT Element type: Symbol	Survey/Mapping:SHRUBC CONIFEROUS SHRUB Element type: Symbol	Survey/Mapping: SIGBRG BRIDGE LIGHT INC TRAFFIC Element type: Symbol
Origin/Insert pt Survey/Mapping: SIGN SIGN	Origin/Insert pt Survey/Mapping: SIGNWS NAT WEATHER SVC STATION	Origin/Insert pt Survey/Mapping: SIGSHO SUB SIGNAL CONNECT SHORE
Element type: Symbol  Origin/Insert pt	Element type: Symbol	Element type: Symbol  Origin/Insert pt
S S	Origin/Insert pt	Ø HECP
Survey/Mapping: SIGST1 SIGNAL STATION GENERAL Element type: Symbol	Survey/Mapping:SIGST2 SIGNAL STATION GENERAL Element type: Symbol	Survey/Mapping: SIGSTP PORT CONTROL SIGNAL STATION Element type: Symbol

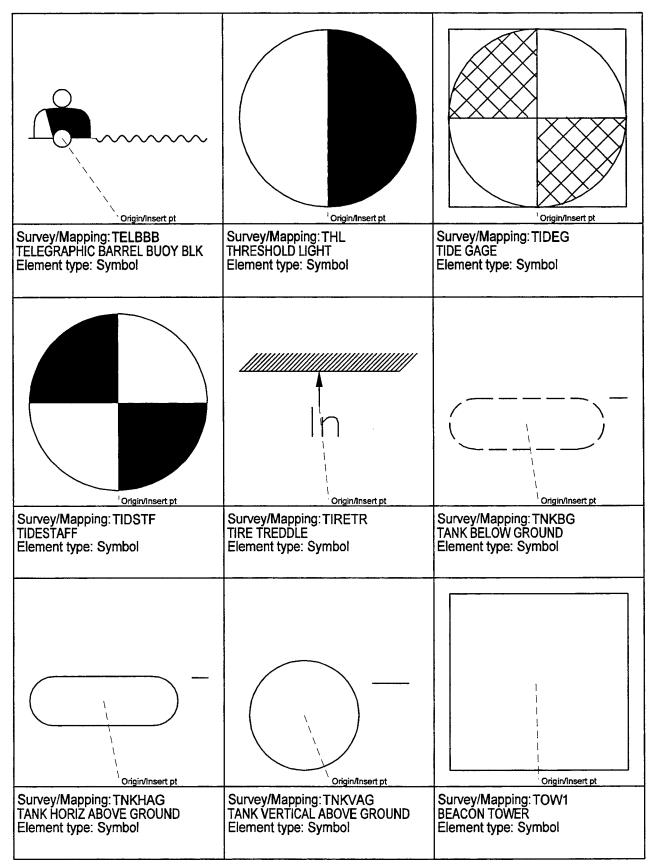


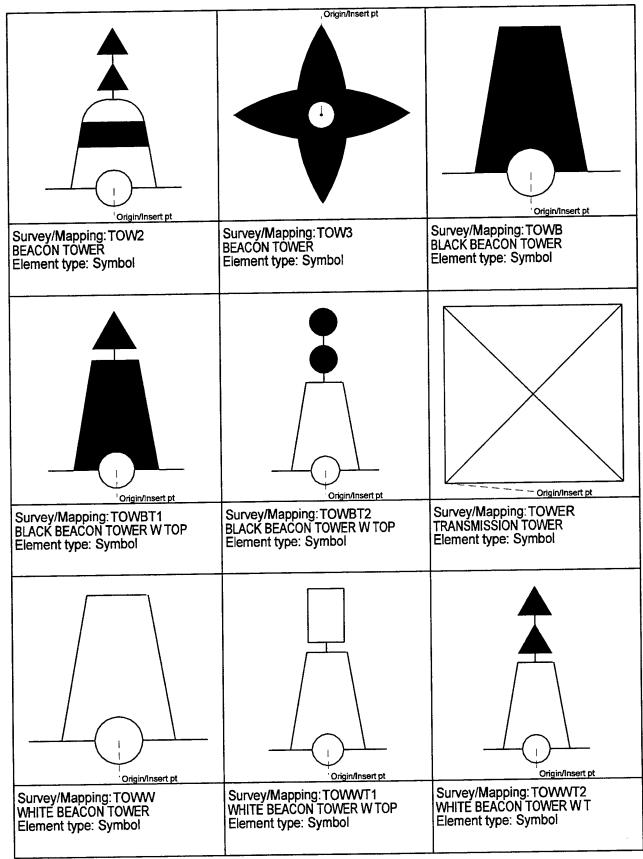


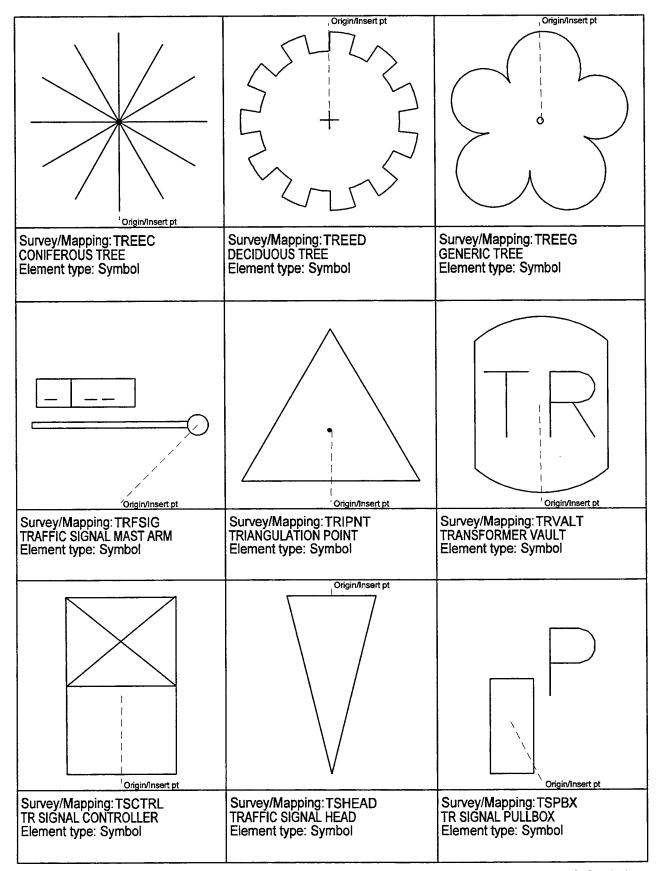


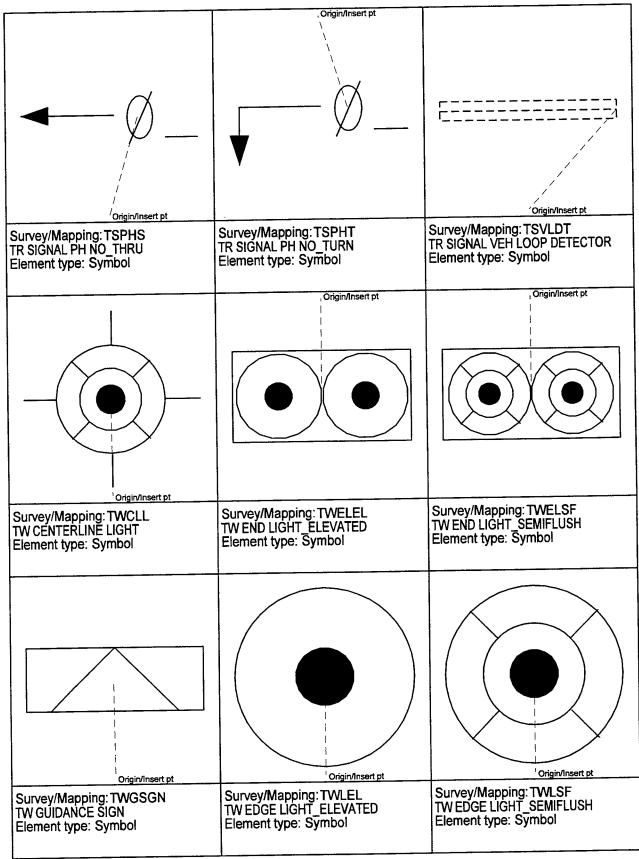


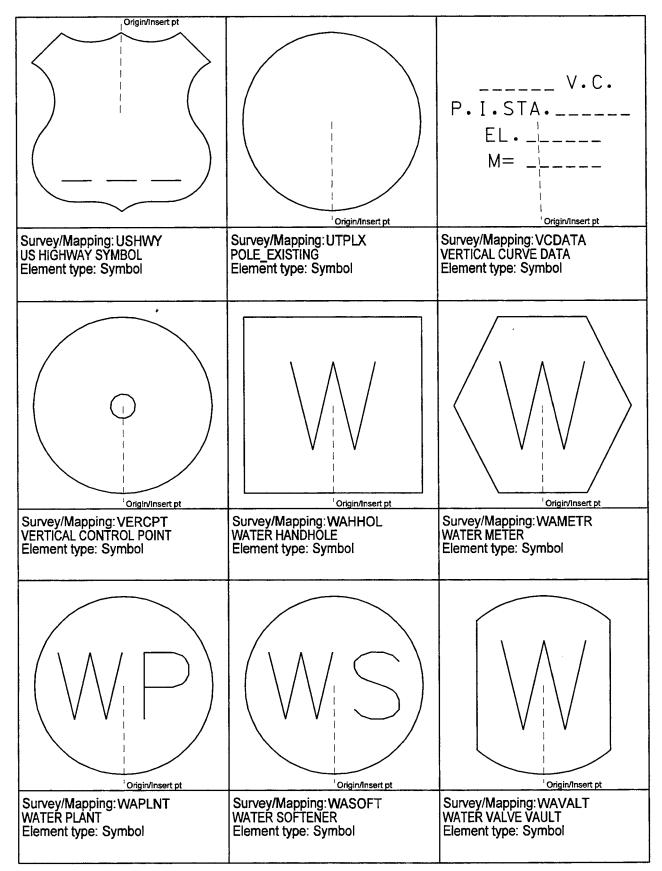


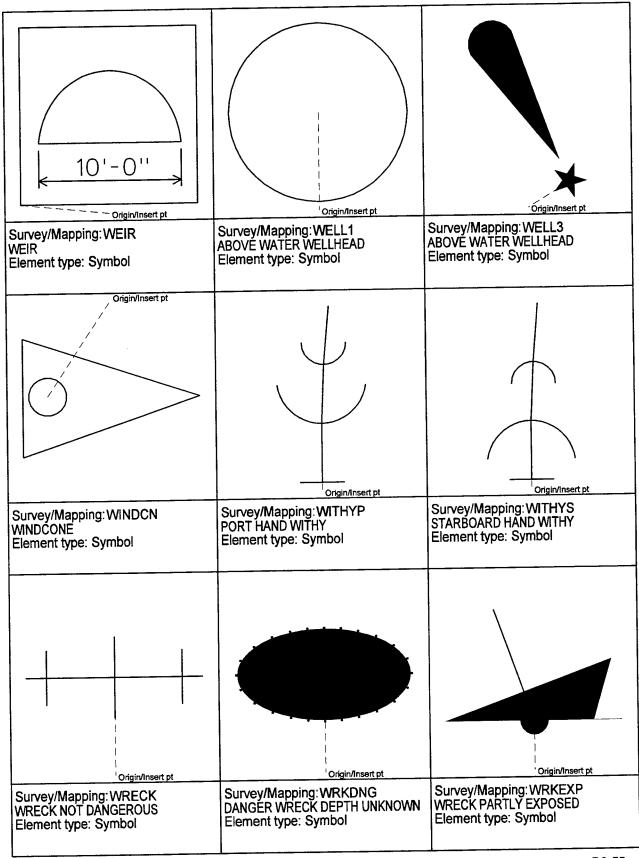






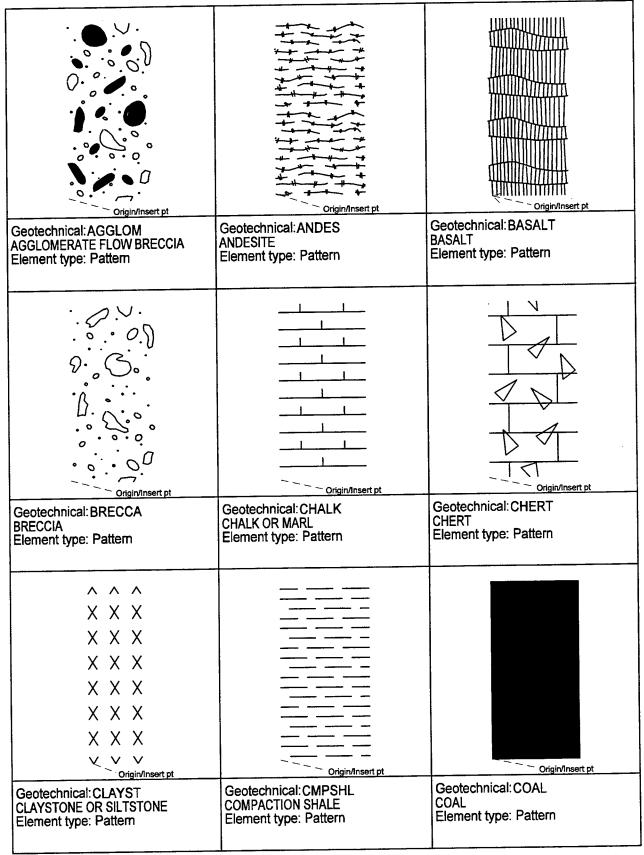






Origin/Insert pt	, Origin/Insert pt
Survey/Mapping:XFRPLX	Survey/Mapping:XFRPMX
XFMR_POLE_EXIST	XFMR_PAD_EXIST
Element type: Symbol	Element type: Symbol

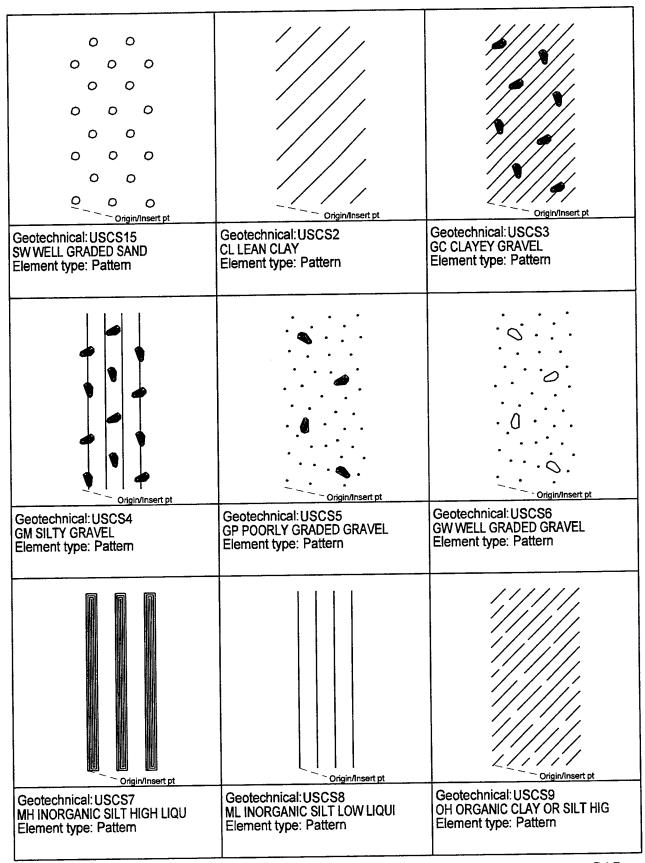
## **4 Geotechnical Patterns Library**

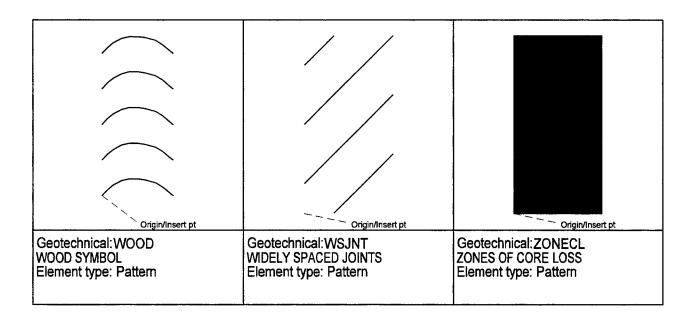


Geotechnical: CONGLM CONGLOMERATE Element type: Pattern	Geotechnical: CSHALE CEMENTED SHALE Element type: Pattern	Geotechnical: CSJNT CLOSELY SPACED JOINTS Element type: Pattern
++++++ +++++ ++++++ ++++++ ++++++ ++++++	Geotechnical: DOLOM DOLOMITE Element type: Pattern	Geotechnical: GABBRO GABBRO Element type: Pattern
Geotechnical: GNEISS GNEISS Element type: Pattern	Geotechnical: GRANIT GRANITE Element type: Pattern	Geotechnical: GRAYWC GRAYWACKE Element type: Pattern

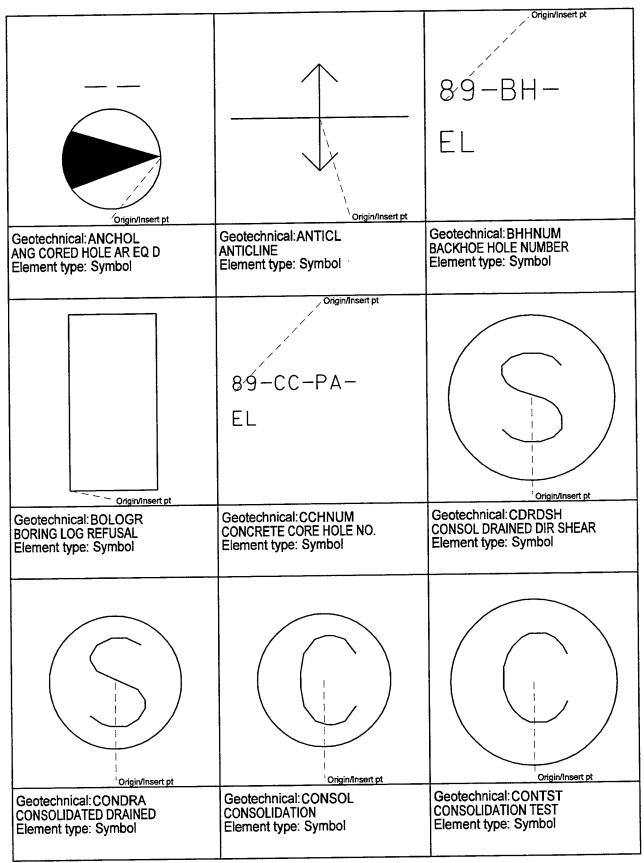
Geotechnical: HFRACT HIGHLY FRACTURED Element type: Pattern	Geotechnical: LIMEST LIMESTONE Element type: Pattern	Geotechnical: MARBL1 MARBLE ELEVATION VIEW Element type: Pattern
Geotechnical: MSJNT MODERATELY SPACED JOINTS Element type: Pattern	Geotechnical: QUARTZ QUARTZITE Element type: Pattern	Geotechnical: RHYOLT RHYOLITE Element type: Pattern
Geotechnical: SANDST SANDSTONE	Geotechnical: SCHIST SCHIST	Geotechnical: SHELL SHELLS Element type: Pattern

Geotechnical: SLATE SLATE Element type: Pattern	Geotechnical: SOAPST SOAPSTONE OR SERPENTINE Element type: Pattern	Geotechnical: TUFF TUFF OR TUFF BRECCIA Element type: Pattern
Geotechnical: USCS1 USCS SOIL SYMBOL Element type: Pattern	Geotechnical: USCS10 OL ORGANIC CLAY OR SILT LOW Element type: Pattern	Geotechnical: USCS11 PT PEAT Element type: Pattern
Geotechnical: USCS12 SC CLAYEY SAND Element type: Pattern	Geotechnical: USCS13 SM SILTY SAND Element type: Pattern	Geotechnical: USCS14 SP POORLY GRADED SAND Element type: Pattern

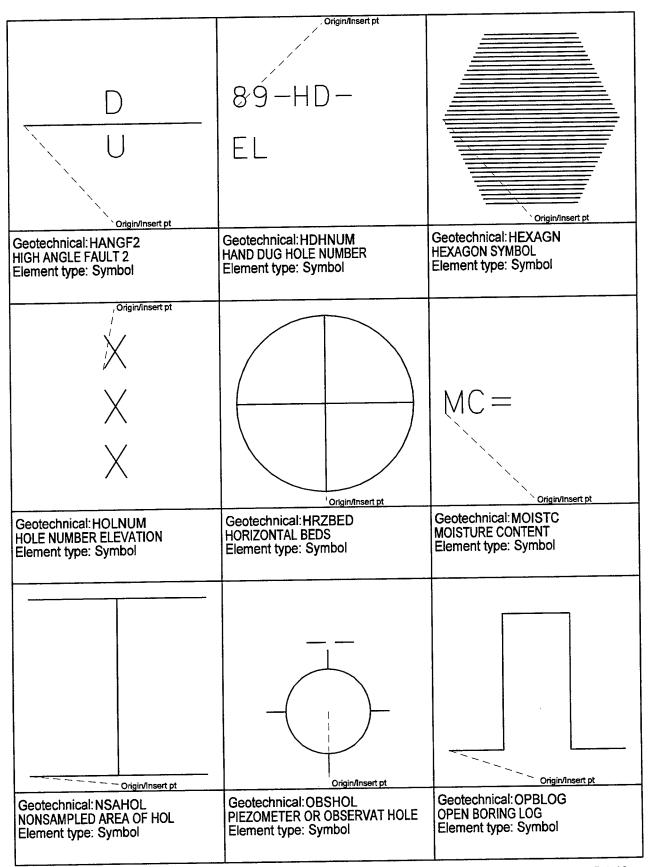


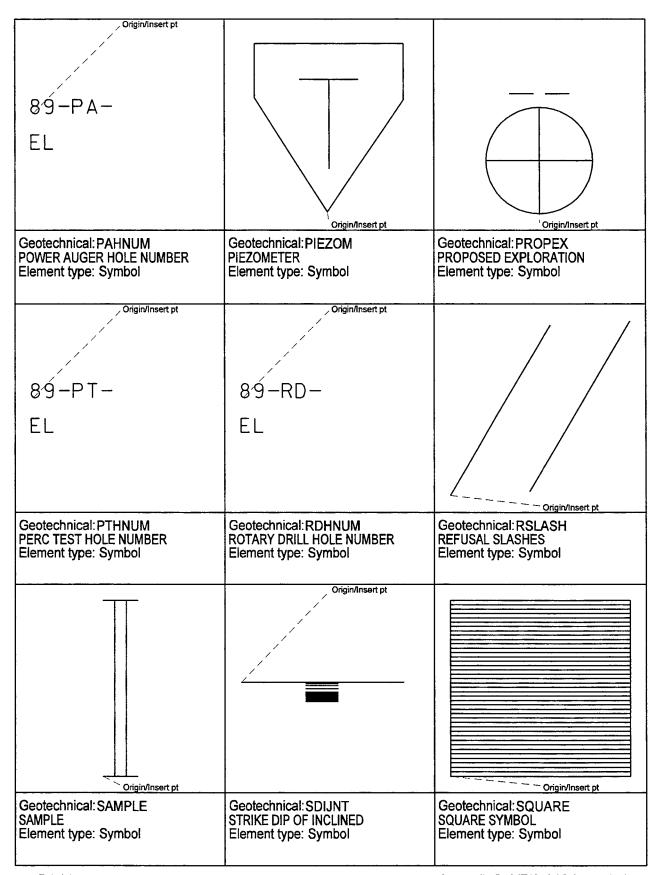


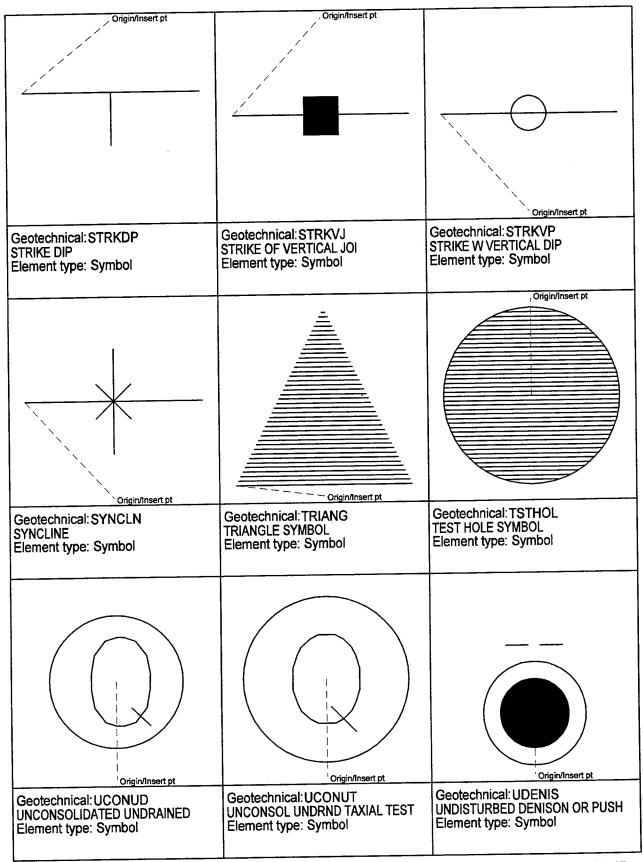
## **4 Geotechnical Symbols Library**

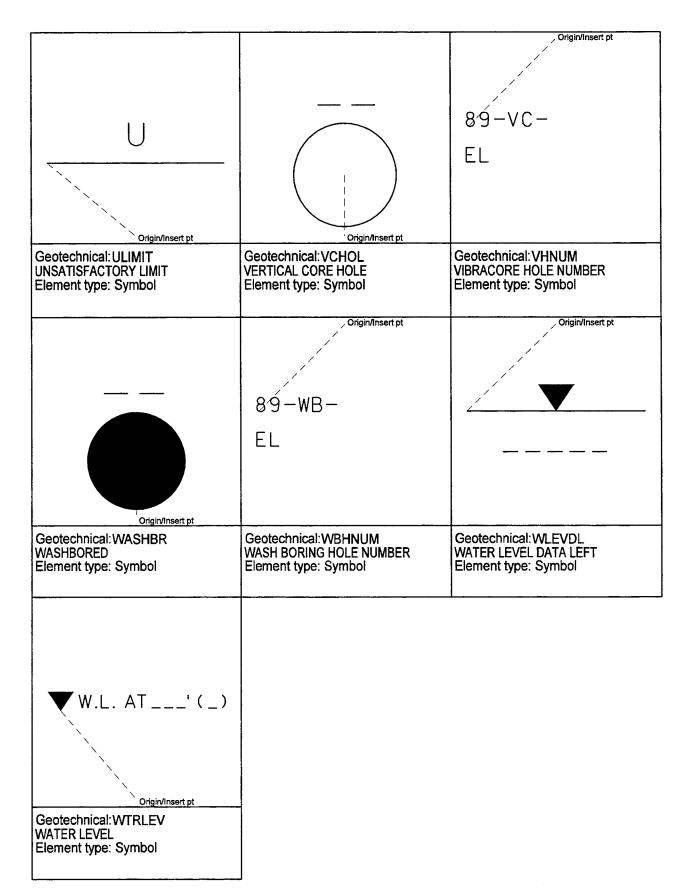


Geotechnical: CONUDR CONSOLIDATED UNDRAINED Element type: Symbol	Geotechnical: CPNHOL CONE PENETROMETER HOLE Element type: Symbol	Geotechnical: CUDRTT CONSOL UNDRND TRIAXIAL TEST Element type: Symbol
Geotechnical: DSCHOL DRIVE SAMPLED SPT AND COR Element type: Symbol	Geotechnical: DSHOL DRIVE SAMPLE SPT HOLE Element type: Symbol	Origin/Insert pt  Geotechnical: FBLCK1 FAULT BLOCK MOVEMENT 1 Element type: Symbol
Geotechnical: FBLCK2 FAULT BLOCK MOVEMENT 2	Origin/Insert pt  S 9 — H A —  E L  Geotechnical: HAHNUM HAND AUGER HOLE NUMBER	Geotechnical: HANGF1 HIGH ANGLE FAULT 1









### **5 Civil Lines Library**

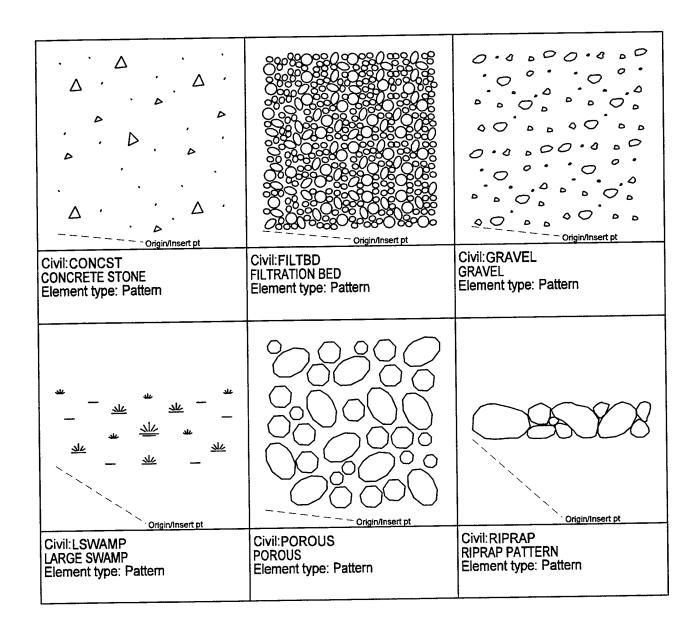
11111111111111111111111111111111111111		<del></del>
Civil:BARDIT DITCH BARRIER Element type: Line	Civil:BARDTB DITCH AND BEAM BARRIER Element type: Line	Civil:BARGEN GENERIC SECURITY BARRIER Element type: Line
<del>- 24 - 24 - 24 - 24 - 24 - 24 - 24 - 24</del>	o	——————————————————————————————————————
Civil:BARMAS SECURITY MASONRY BARRIER Element type: Line	Civil:CONLMT CONSTRUCTION LIMIT Element type: Line	Civil: CULVRT CULVERT PIPE Element type: Line
000		
Civil: DITCH DITCH LINE Element type: Line	Civil:FENCE FENCE Element type: Line	Civil:FIRE FIRE PROTECTION WATR SUPPLY Element type: Line

——FOR——	—— F O S ——	——FOV——
Civil:FUELOR FUEL OIL RETURN Element type: Line	Civil:FUELOS FUEL OIL SUPPLY Element type: Line	Civil:FUELOV FUEL OIL TANK VENT Element type: Line
<b>→</b>		
Civil:GOVTKL GOVERNMENT TAKING LINE Element type: Line	Civil:GUARD GUARD RAIL Element type: Line	Civil:INDXDC INDEX DEPTH CONTOUR Element type: Line
——————————————————————————————————————	—— L P G ——	
Civil:IWASTE INDUSTRIAL WASTE Element type: Line	Civil:LIQPET LIQUID PETROLEUM GAS Element type: Line	Civil:MINRDC MINOR DEPTH CONTOUR Element type: Line

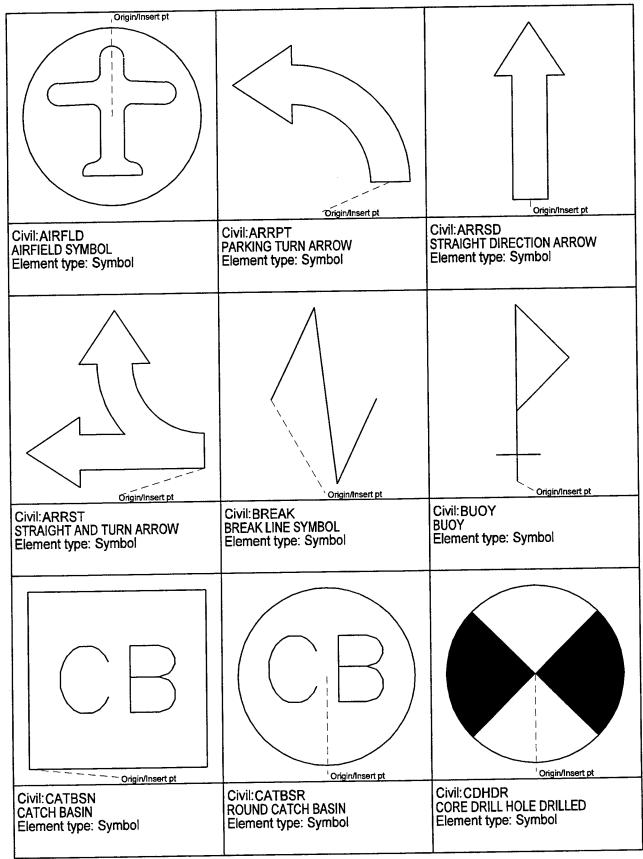
—— N P W ——	——— G ———	——— G <sub>×</sub>
Civil:NONPOT NONPOTABLE WATER Element type: Line	NATURAL GAS	Civil:NTGASX EXIST NATURAL GAS Element type: Line
	——— Р L ———	
Civil:PROJBL PROJECT BOUNDARY LINE Element type: Line	Civil:PROPL PROPERTY LINE Element type: Line	Civil:RAILRD RAILROAD Element type: Line
R/W	——— S S ———	—— s s <sub>x</sub> ——
Civil:RTOFWY RIGHT OF WAY Element type: Line	Civil:SSWAF SANITARY SEWER Element type: Line	Civil:SSWAFX EXISTING SANITARY SEWER Element type: Line

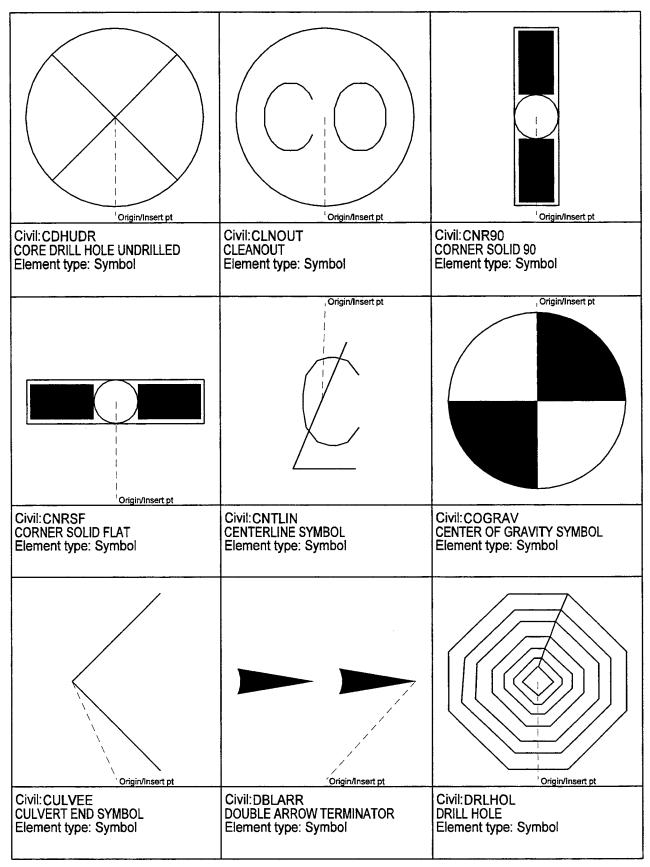
——————————————————————————————————————	——— S D <sub>X</sub> ———	
Civil:STRAF	Civil:STRAFX	Civil:TREEL
STORM DRAIN	EXISTING STORM DRAIN	TREE LINE
Element type: Line	Element type: Line	Element type: Line
W		——————————————————————————————————————
Civil:WATERL	Civil:WATRX	Civil:WWFBRC
WATER LINE	EXISTING WATER LINE	WELDED WIRE FABRIC
Element type: Line	Element type: Line	Element type: Line

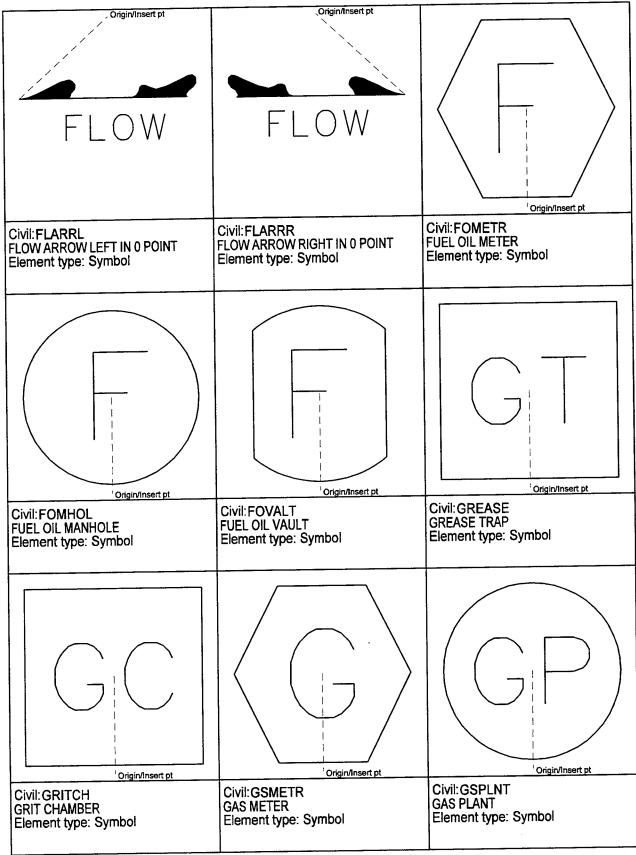
#### **5 Civil Patterns Library**

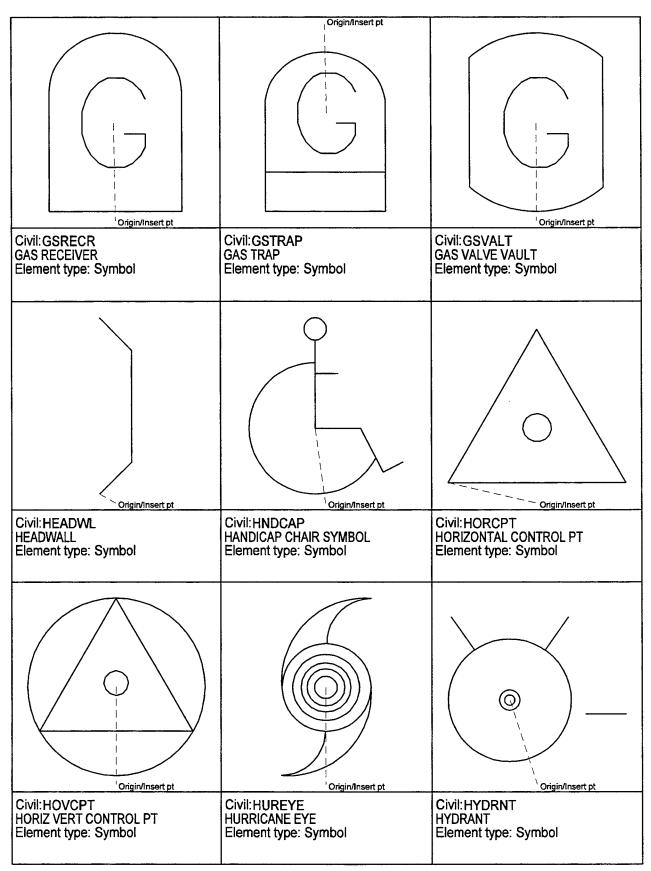


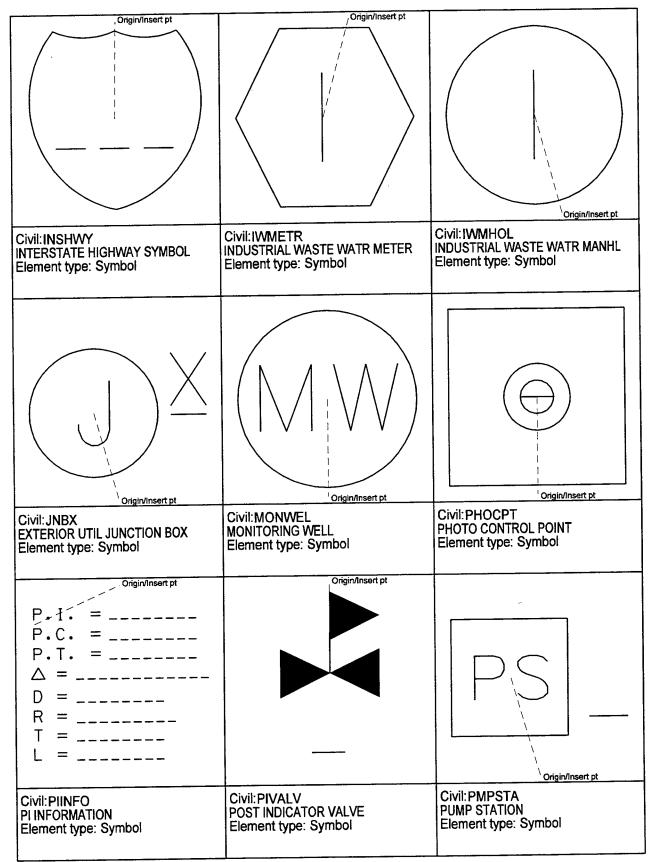
### **5 Civil Symbols Library**

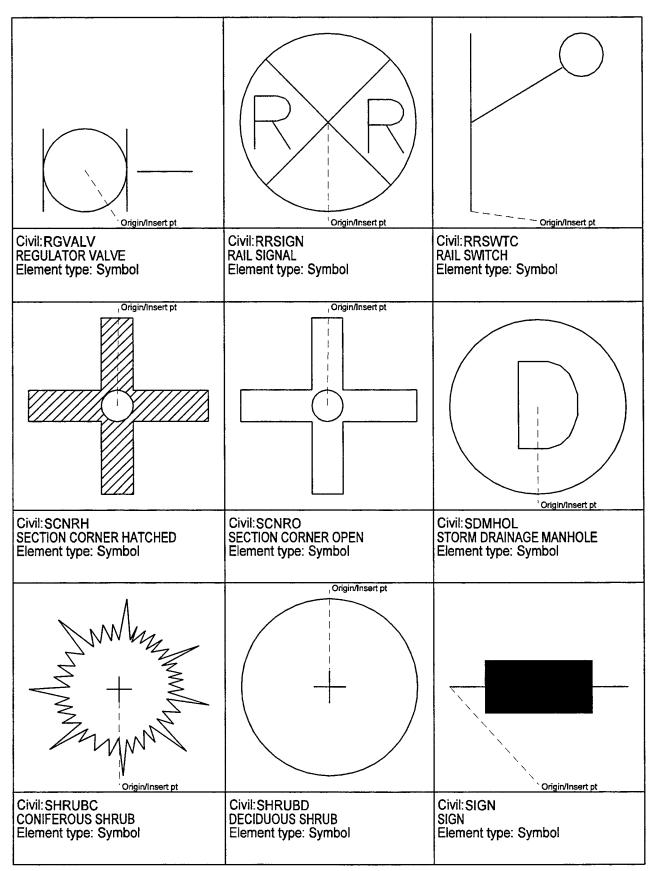


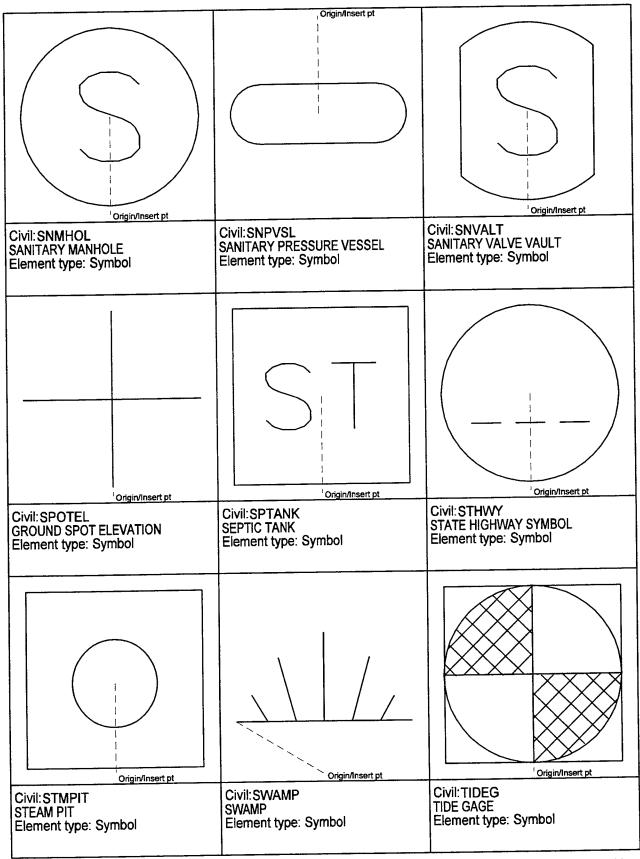


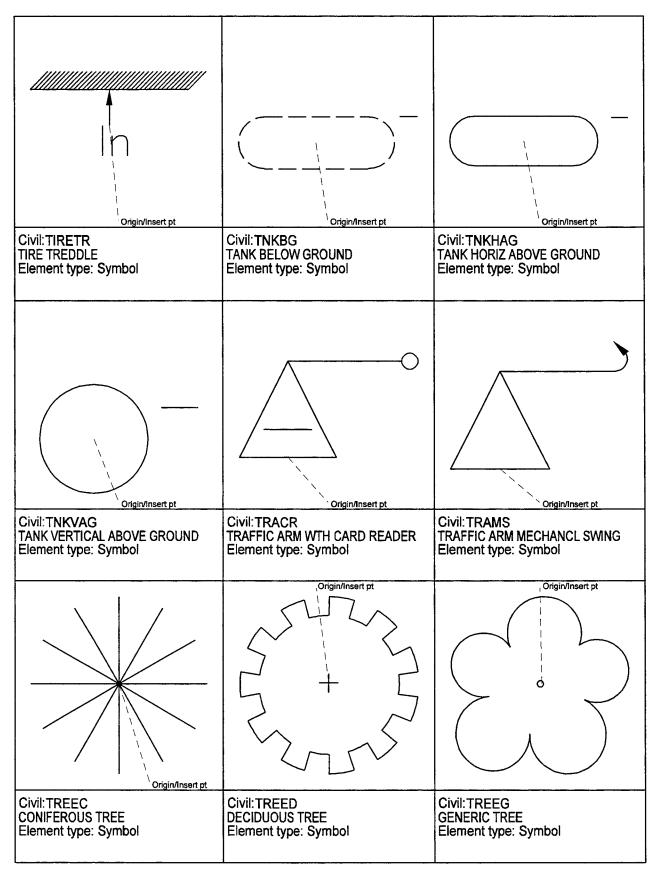


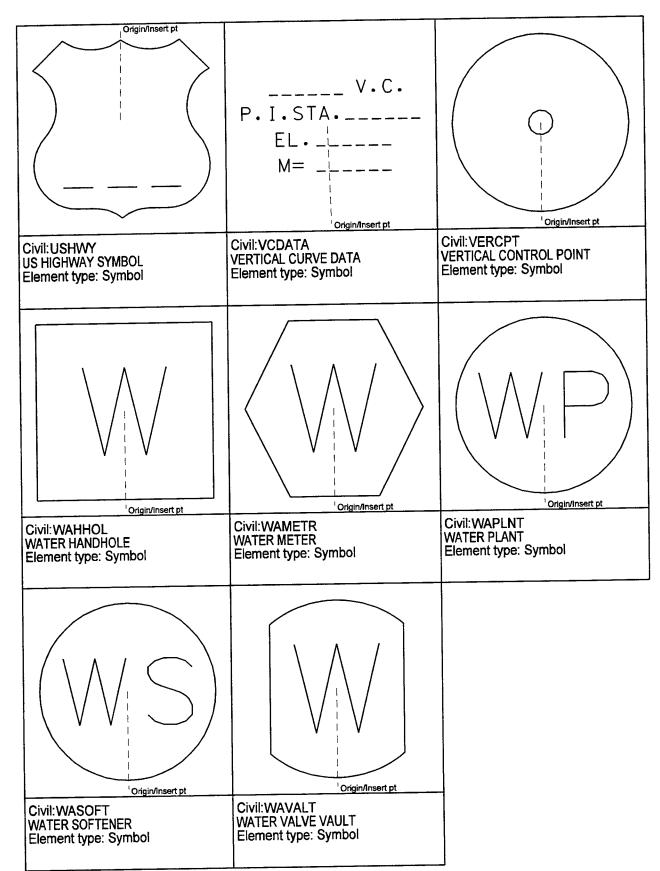








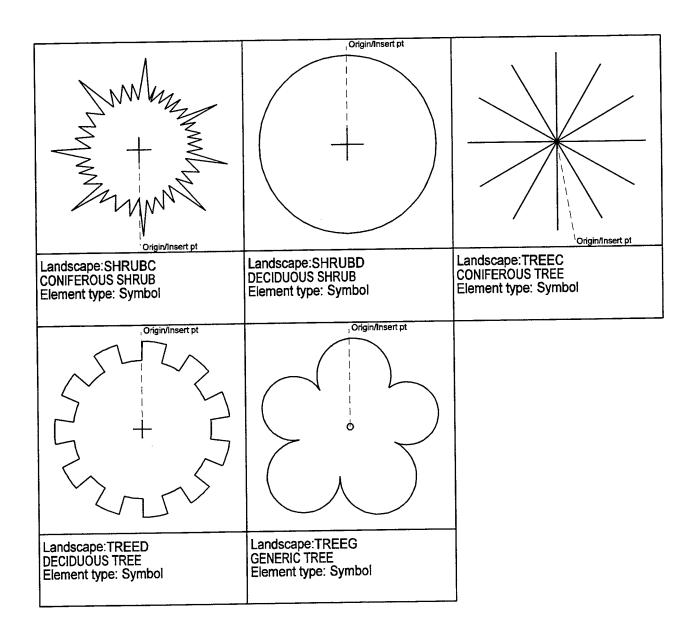




## **6 Landscape Lines Library**

××	——— L S ———	
Landscape:FENCE	Landscape:LAWNSP	Landscape:TREEL
FENCE	LAWN SPRINKLER SUPPLY	TREE LINE
Element type: Line	Element type: Line	Element type: Line

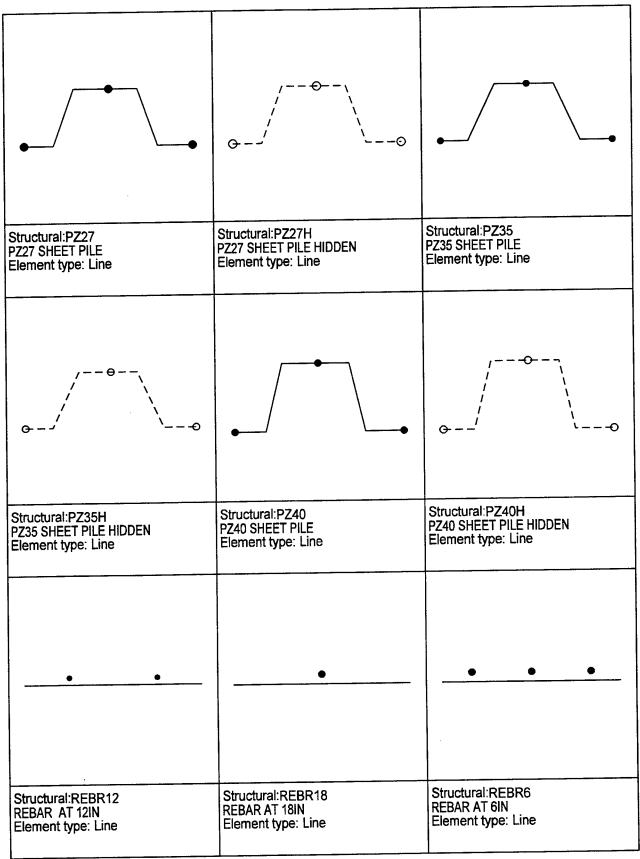
### 6 Landscape Symbols Library



### 7 Structural Lines Library

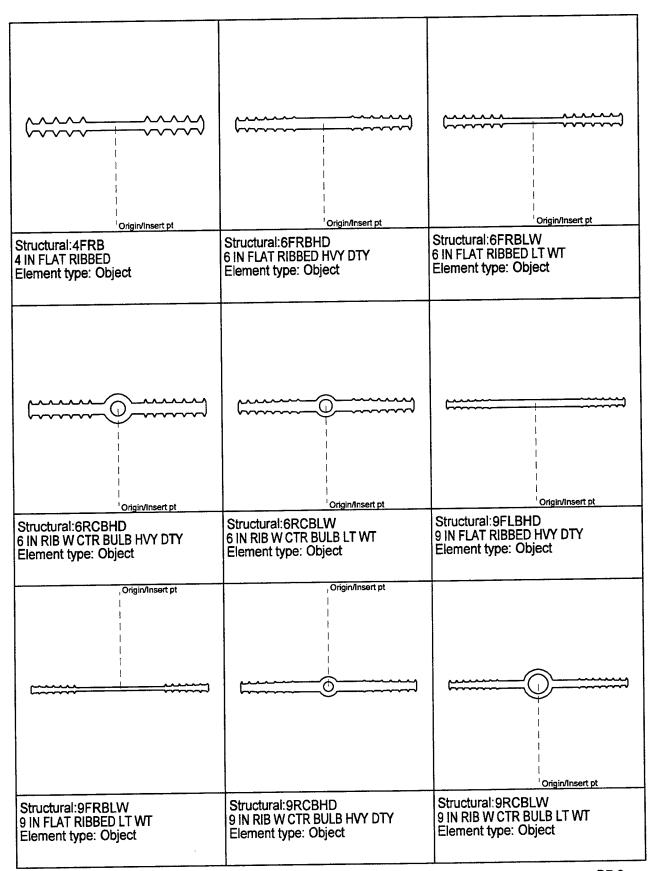
Structural:BERM BERM Element type: Line	Structural:CMP127 CMP 127MMX25MM OR 5IN X 1IN Element type: Line	Structural:CMP152 CMP 152MMX51MM OR 6IN X 2IN Element type: Line
Structural:CMP38 CMP38MMX6MM OR 1.5INX.25IN Element type: Line	Structural:CMP51 CMP51MMX13MM OR 2IN X .5IN Element type: Line	Structural:CMP68 CMP68MMX13MM OR 2.7INX.5IN Element type: Line
Structural:CMP76 CMP76MMX25MM OR 3IN X 1IN Element type: Line	Structural:DECKCR CORRUGATED METAL DECK Element type: Line	Structural:DECKFL METAL DECK FLOOR Element type: Line

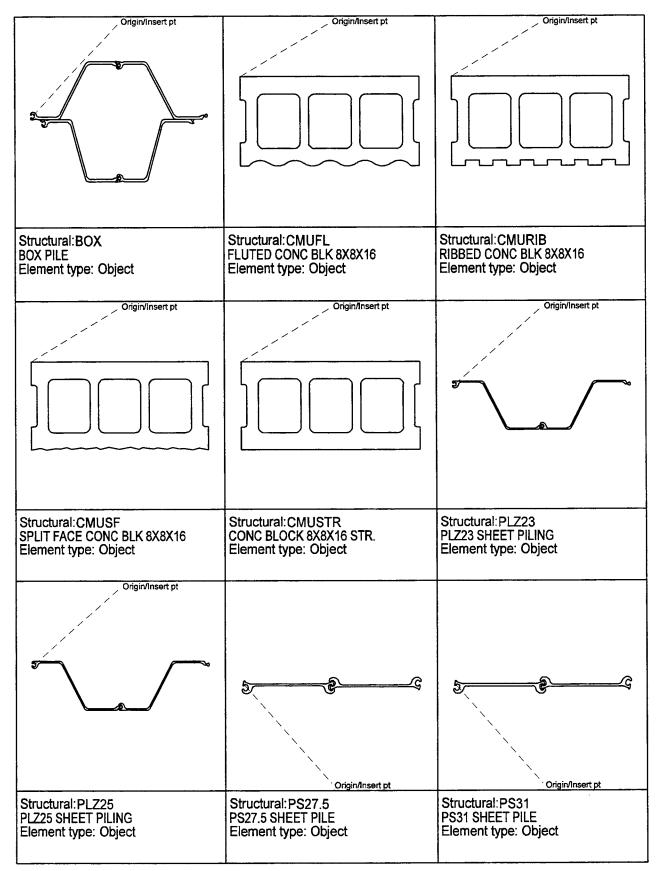
Structural:DECKRF	Structural:GROUND	Structural:INTRLK
METAL DECK ROOF	GROUND	INTERLOCK SLOPE PROTECTION
Element type: Line	Element type: Line	Element type: Line
	<del>-</del>	
Structural:PS31	Structural:PS31H	Structural:PSA23
PS31 SHEET PILE	PS31 SHEET PILE HIDDEN	PSA23 SHEET PILE
Element type: Line	Element type: Line	Element type: Line
0^\0\		Q-/
Structural:PSA23H	Structural:PZ22	Structural:PZ22H
PSA23 SHEET PILE HIDDEN	PZ22 SHEET PILE	PZ22 SHEET PILE HIDDEN
Element type: Line	Element type: Line	Element type: Line

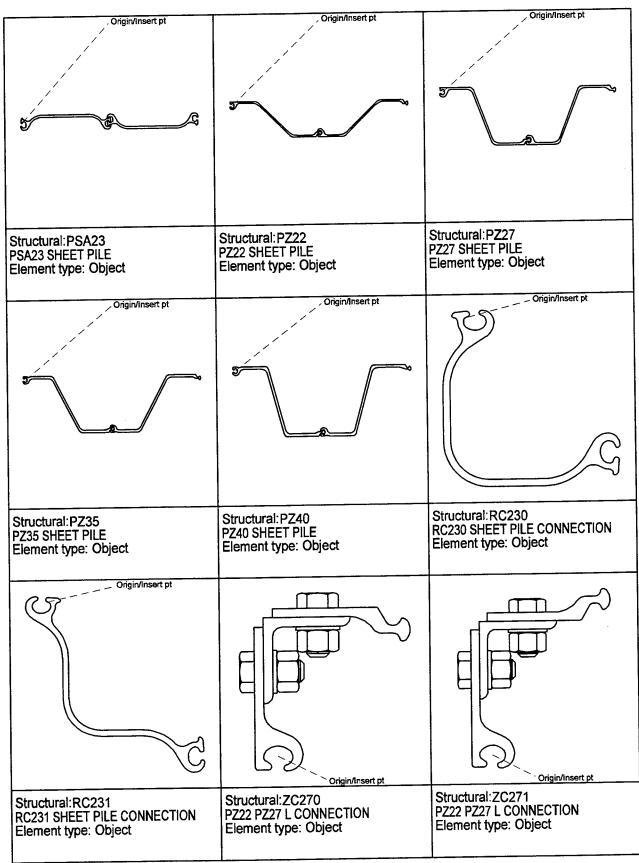


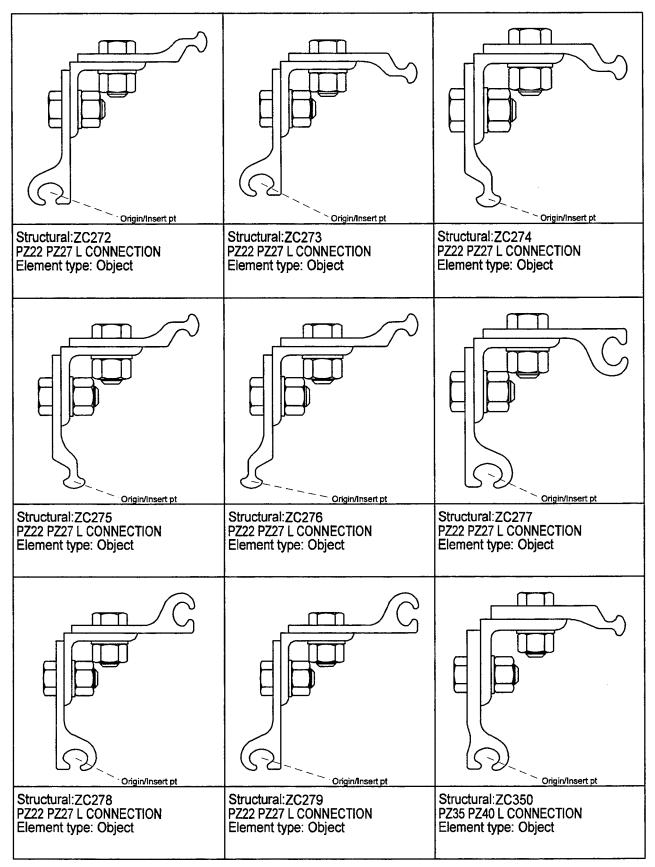
•		
Structural:REBR9 REBAR AT 9IN Element type: Line	Structural:RIPPLN RIPRAP PLAN VIEW Element type: Line	Structural:ROCK ROCK Element type: Line
•••	——————————————————————————————————————	
Structural:SHORLN SHORE LINE Element type: Line	Structural:WWFBRC WELDED WIRE FABRIC Element type: Line	·

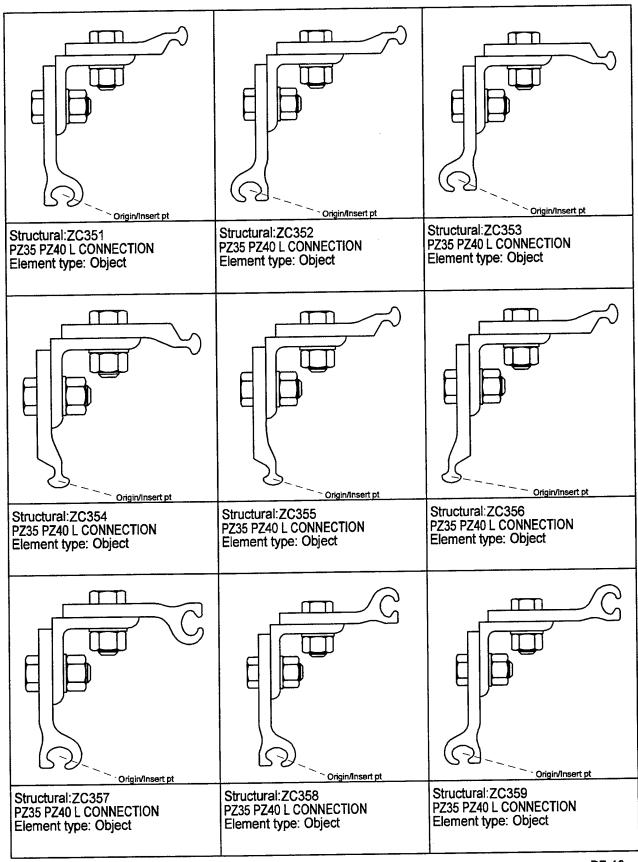
# 7 Structural Objects Library

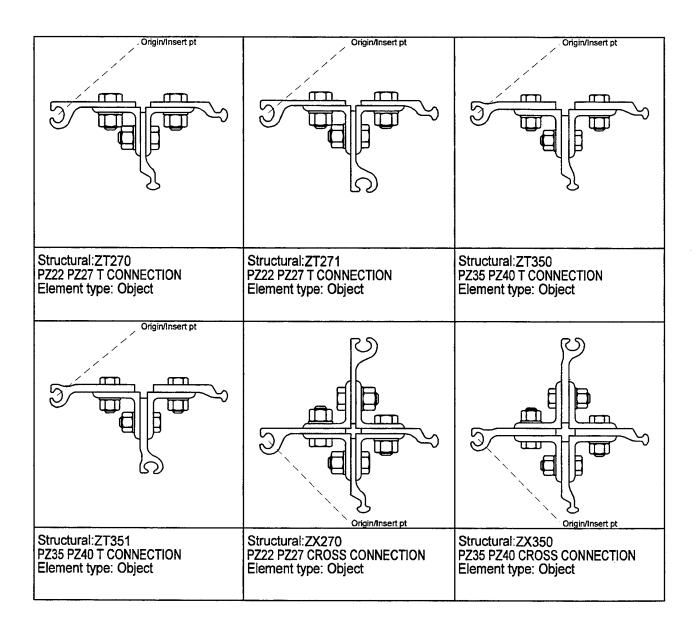




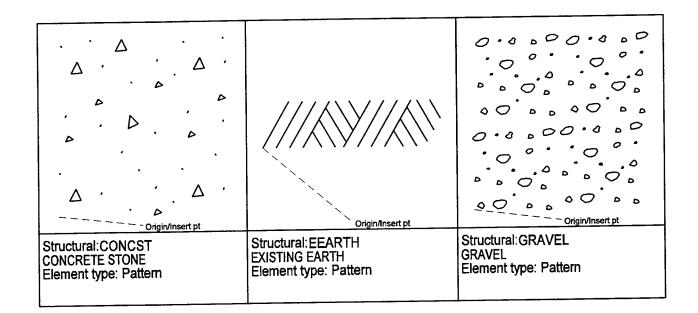




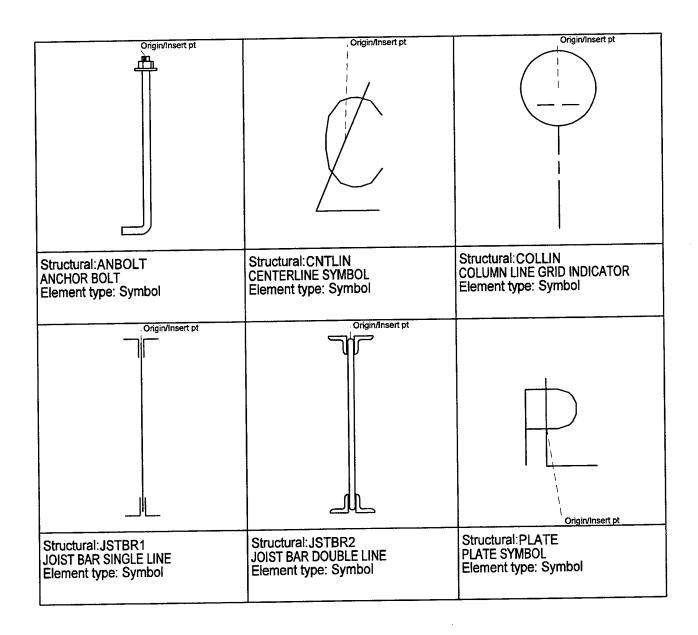




### 7 Structural Patterns Library



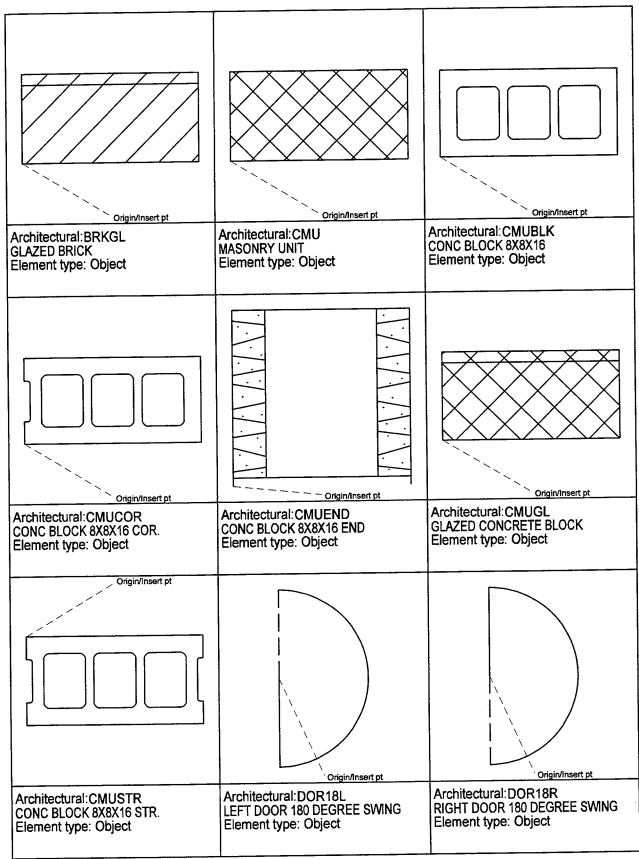
# 7 Structural Symbols Library

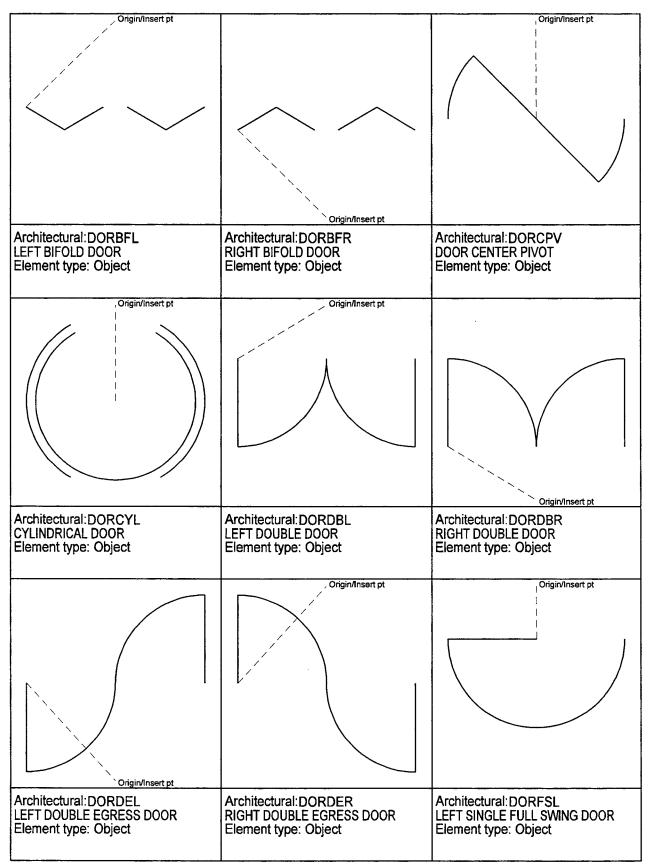


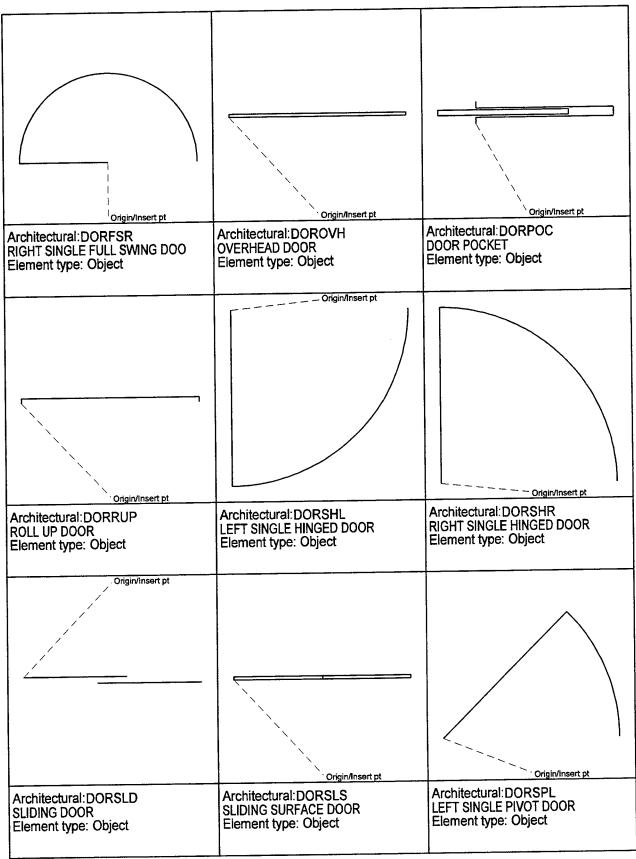
### **8 Architectural Lines Library**

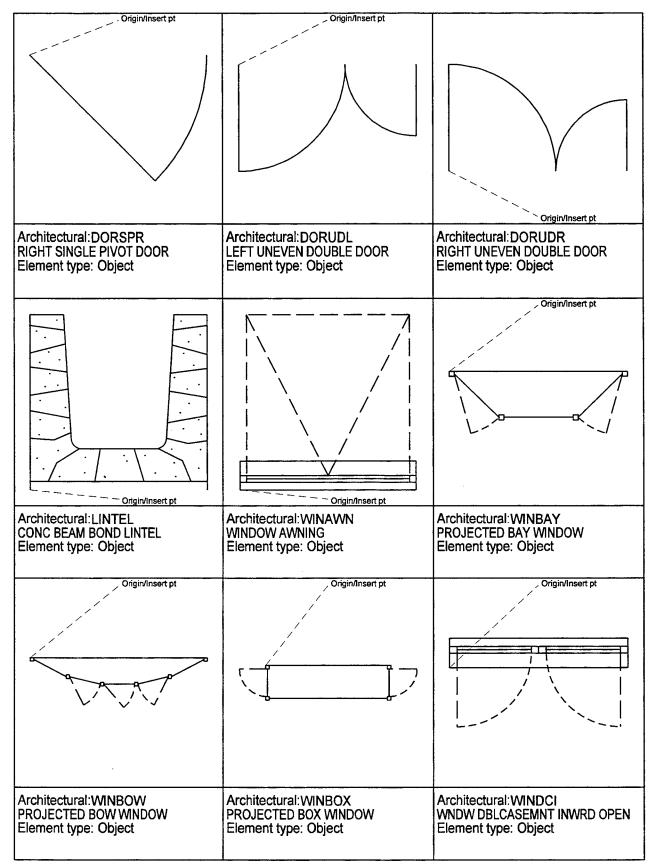
XXXXXXX	x x
Architectural:INBATT	Architectural:WWFBRC
LOOSE FILL BATT INSULATION	WELDED WIRE FABRIC
Element type: Line	Element type: Line

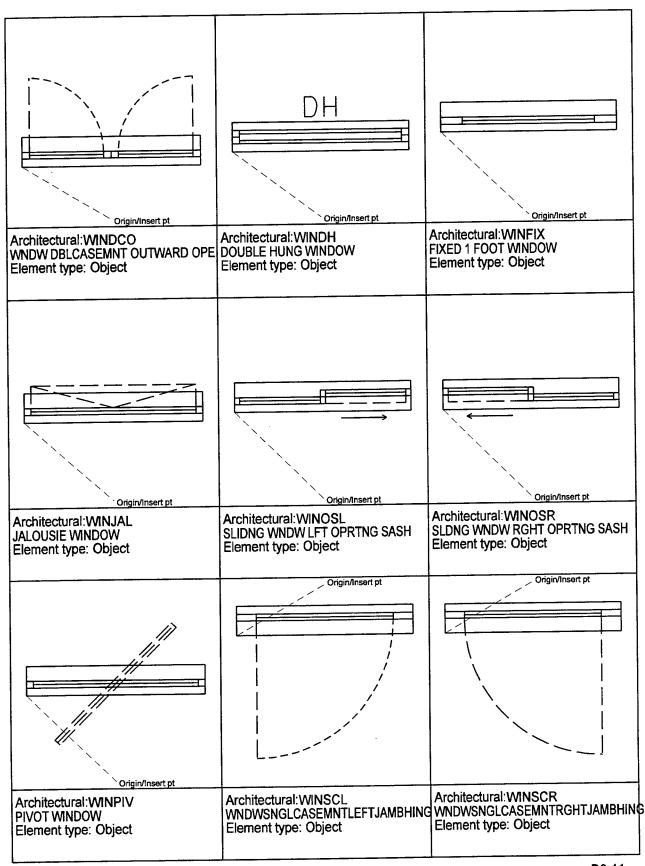
## 8 Architectural Objects Library

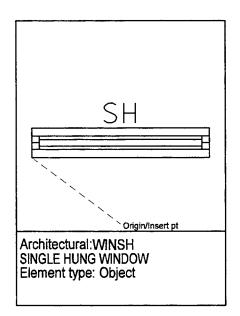




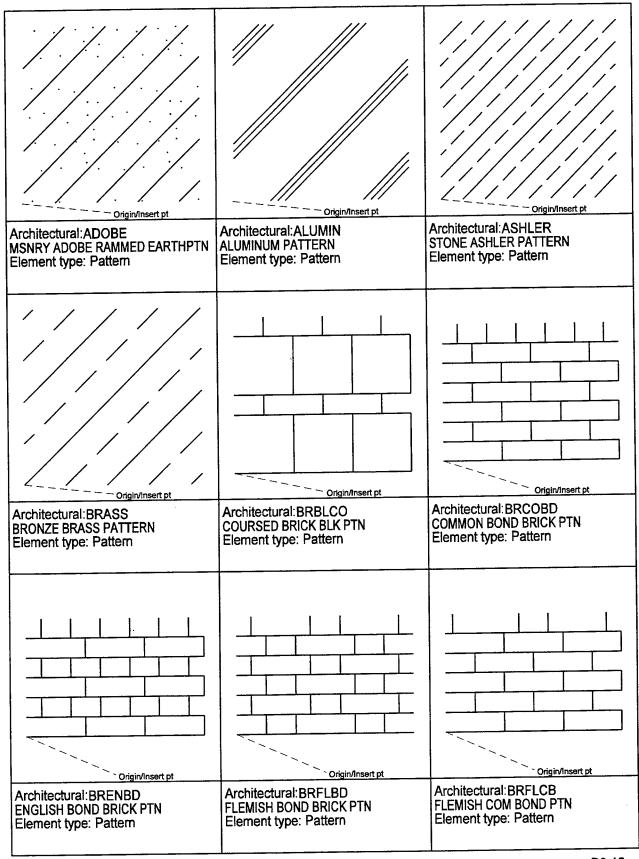


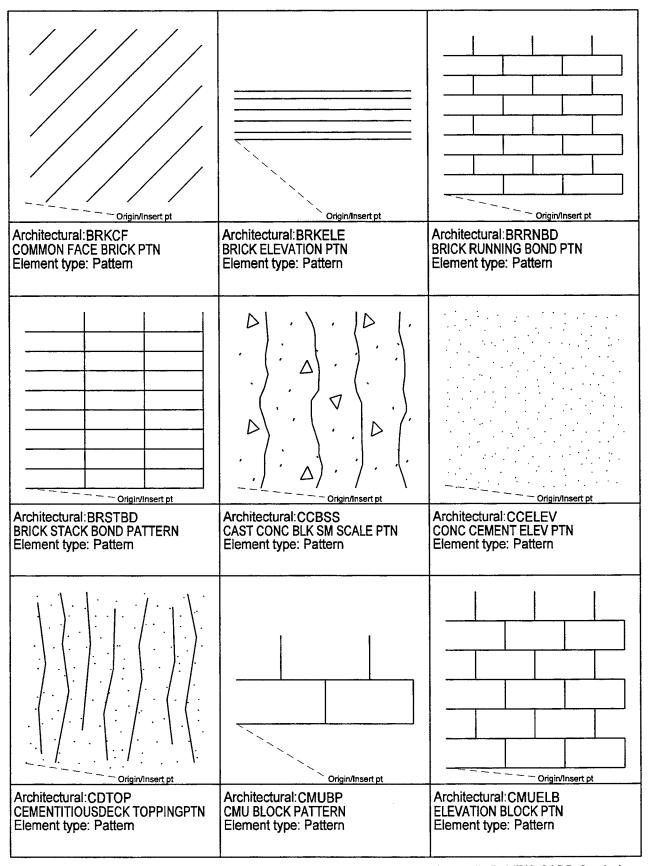


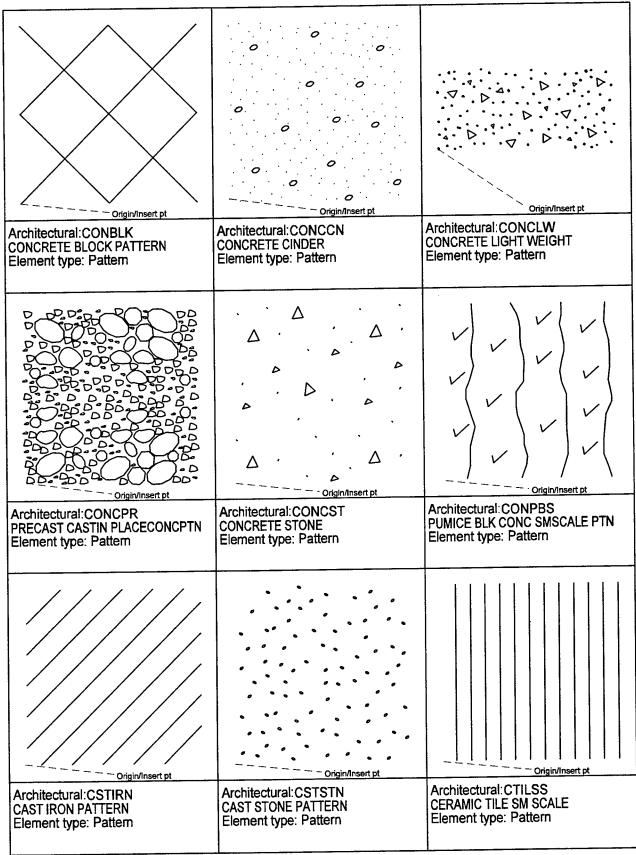


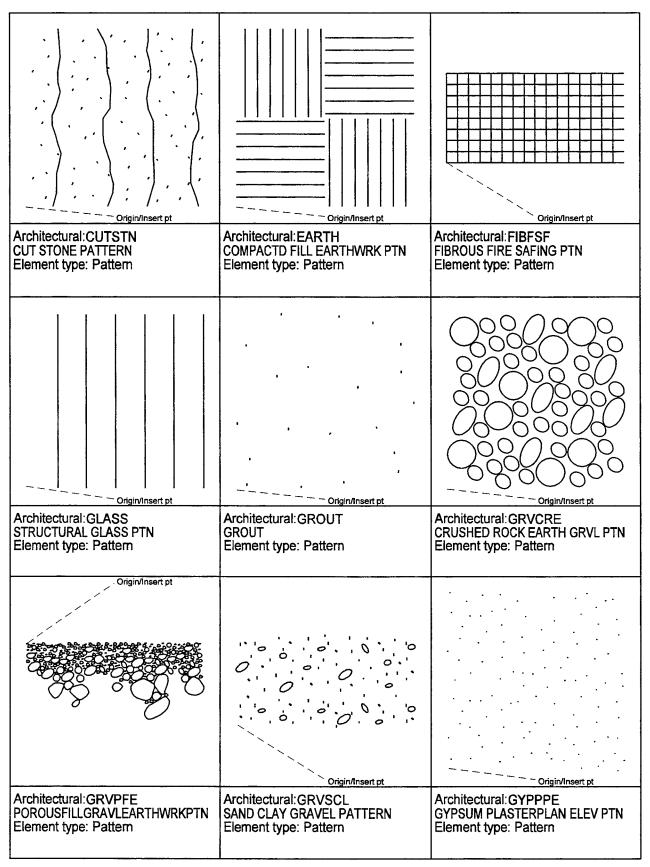


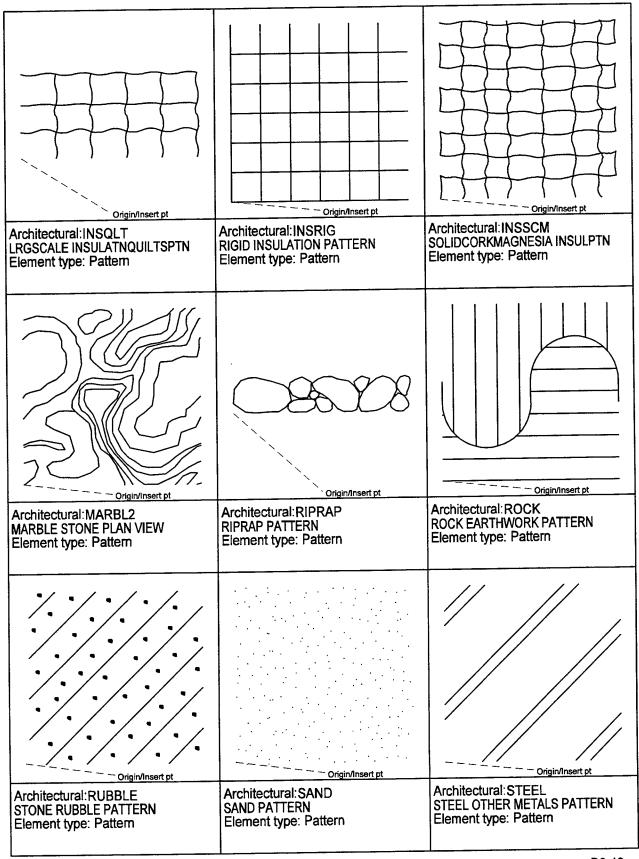
### **8 Architectural Patterns Library**

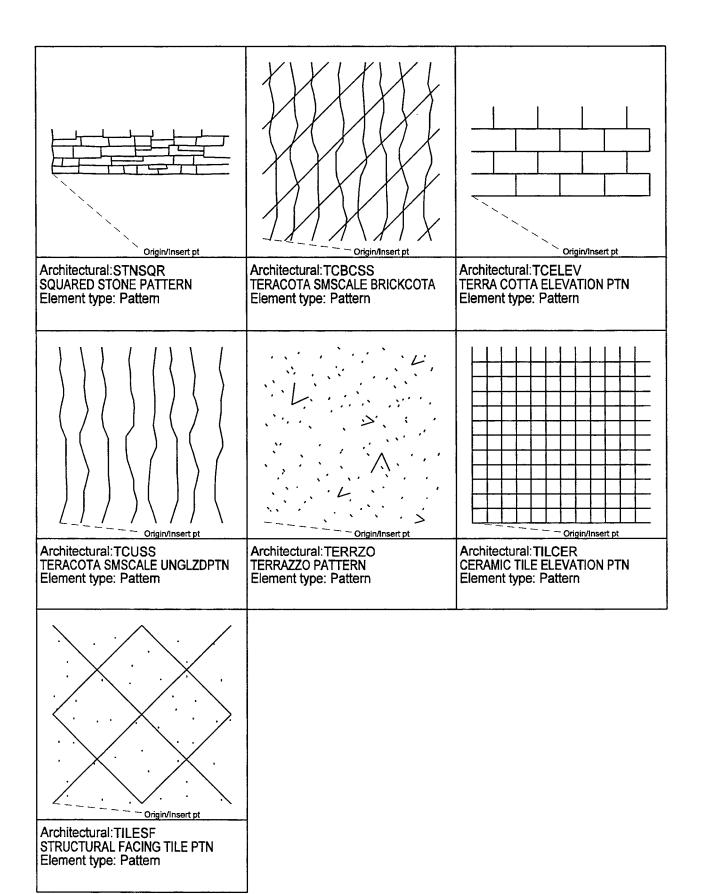




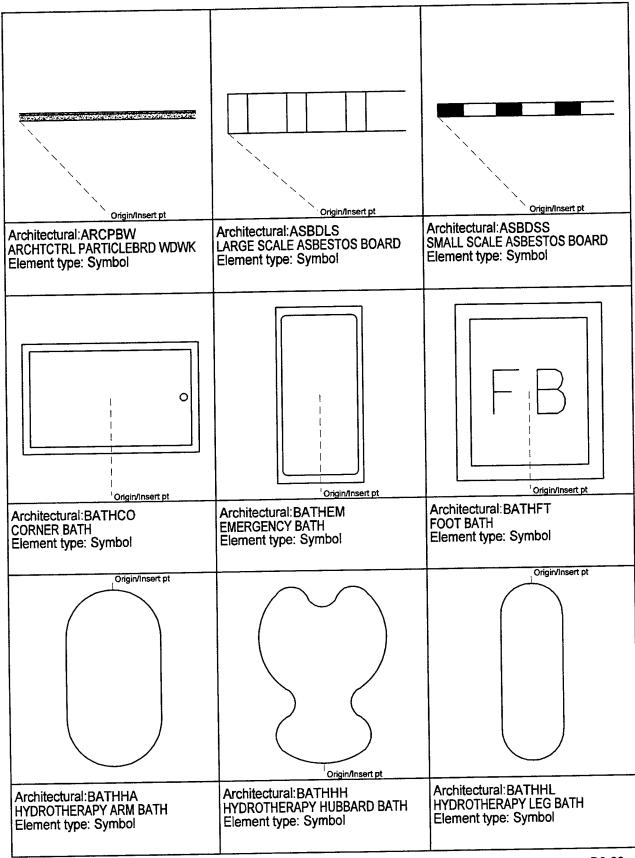


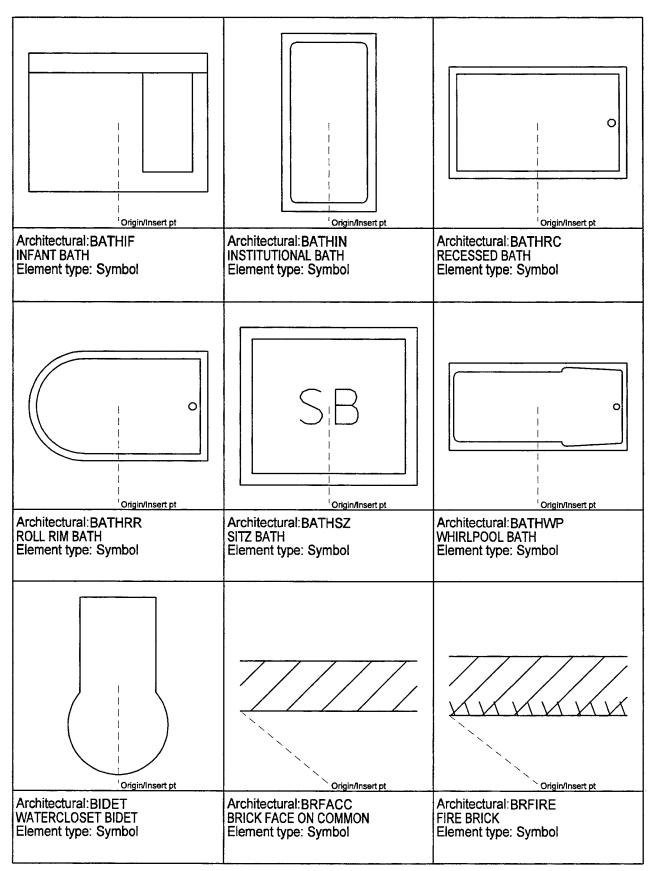


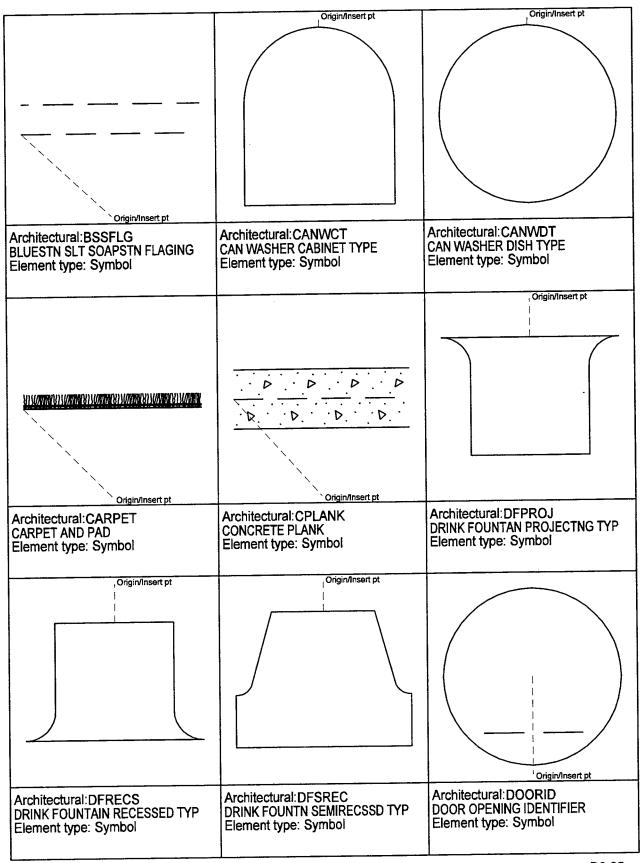


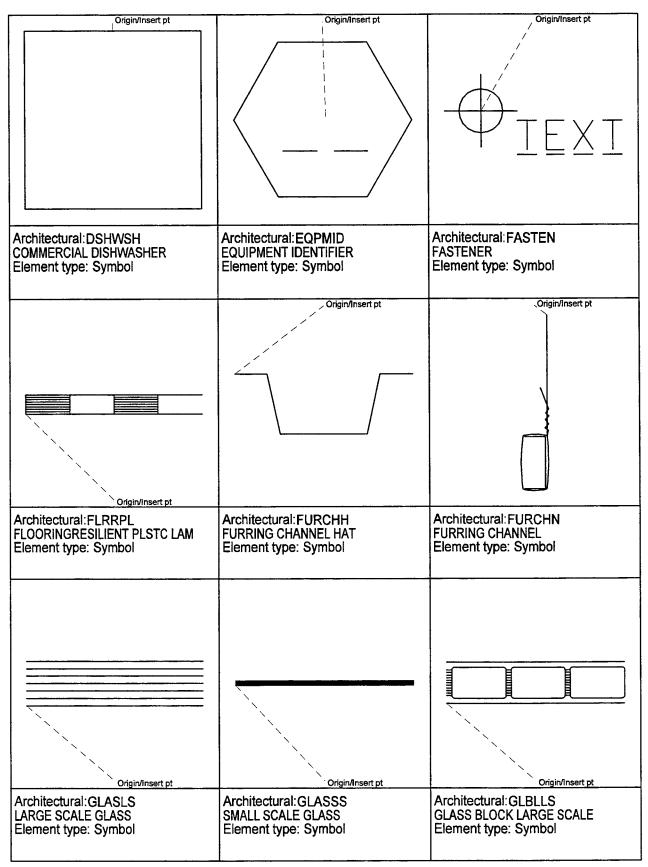


# 8 Architectural Symbols Library

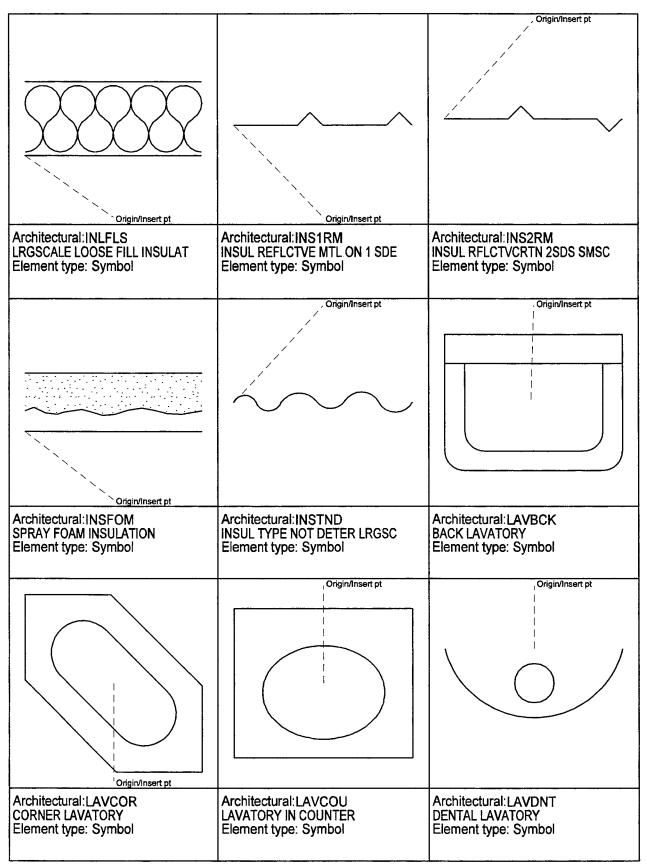


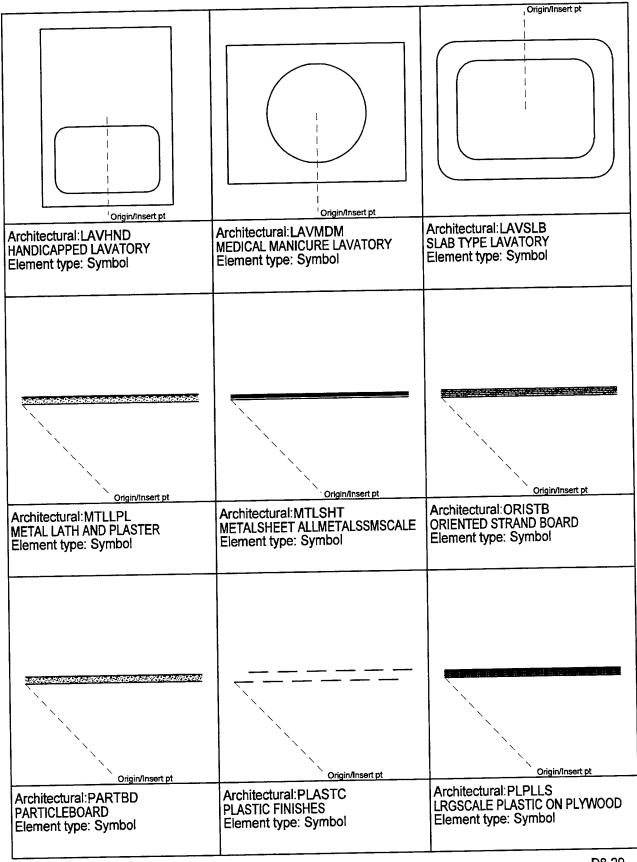




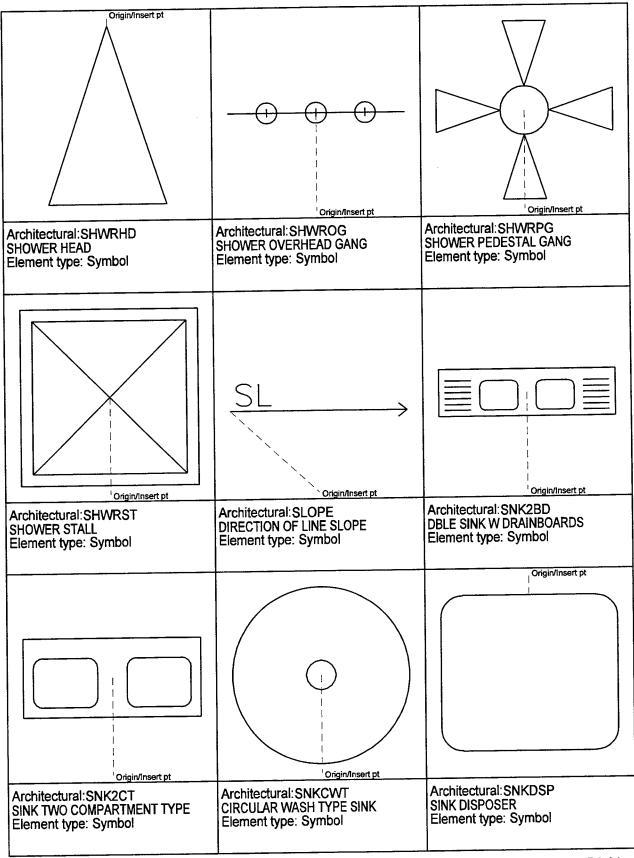


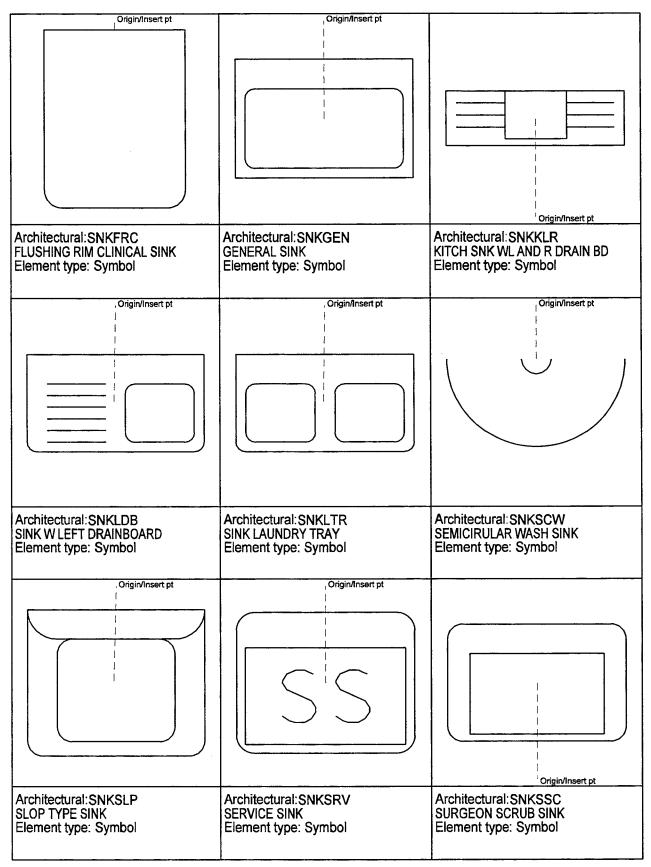
Origin/Insert pt  Architectural:GLBLSS GLASS BLOCK SMALL SCALE Element type: Symbol	Architectural: GLELEV GLASS ELEVATION Element type: Symbol	Origin/Insert pt  Architectural: GPLANK GYPSUM PLANK Element type: Symbol
Origin/Insert pt  Architectural: GYPBLK GYPSUM BLOCK TILE Element type: Symbol	Origin/Insert pt  Architectural: GYPPOM GYPSUM PLASTER ON MASONRY Element type: Symbol	Origin/Insert pt  Architectural: GYPPPB GYPSUM PLASTER PARTICLE BR Element type: Symbol
Origin/Insert pt  Architectural: GYPSPP GYPSUMSOLIDPLASTERPARTITION Element type: Symbol	Origin/Insert pt  Architectural: GYPWBD GYPSUM WALLBOARD FINISHES Element type: Symbol	Architectural:INFBSS SMSCALE FLXBL BLANKET INSUL Element type: Symbol

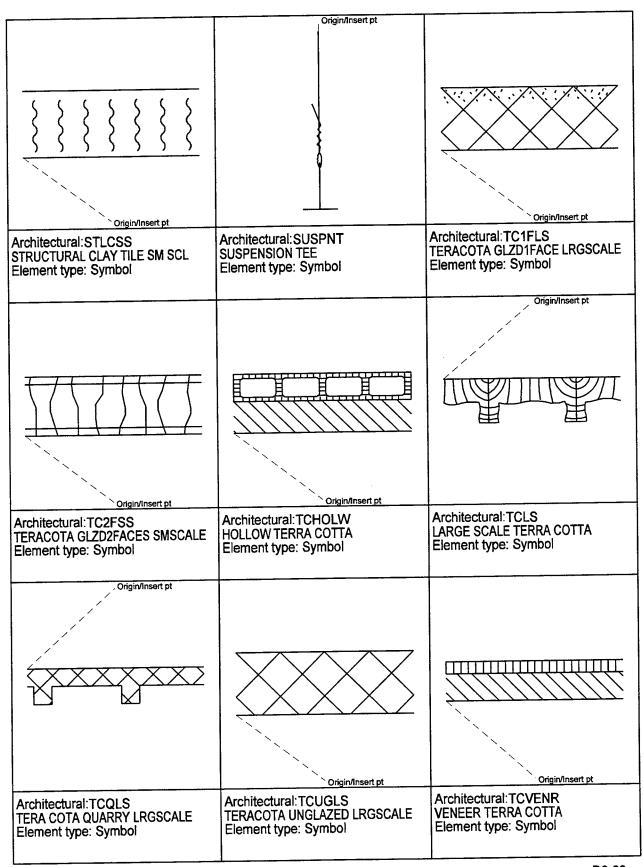


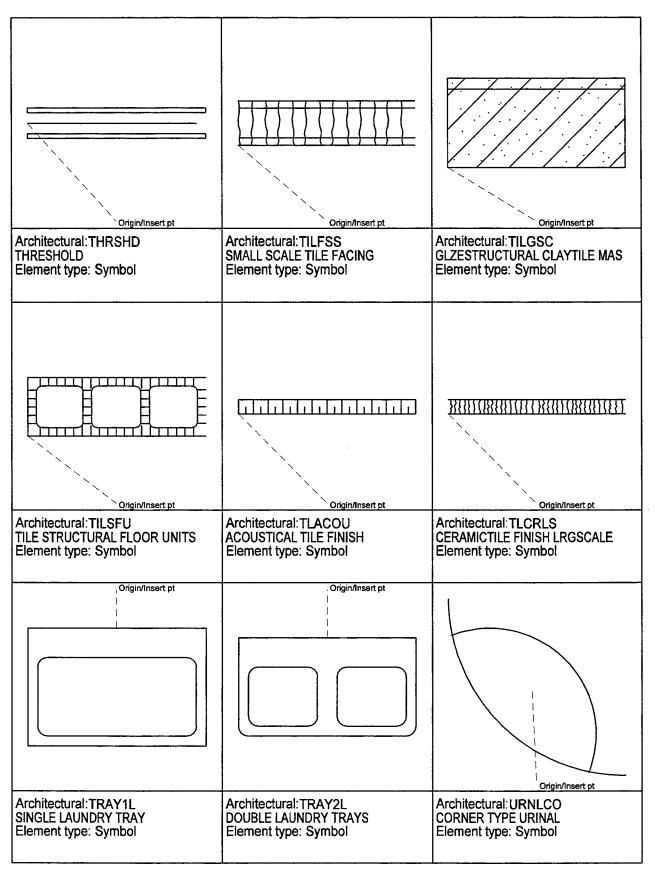


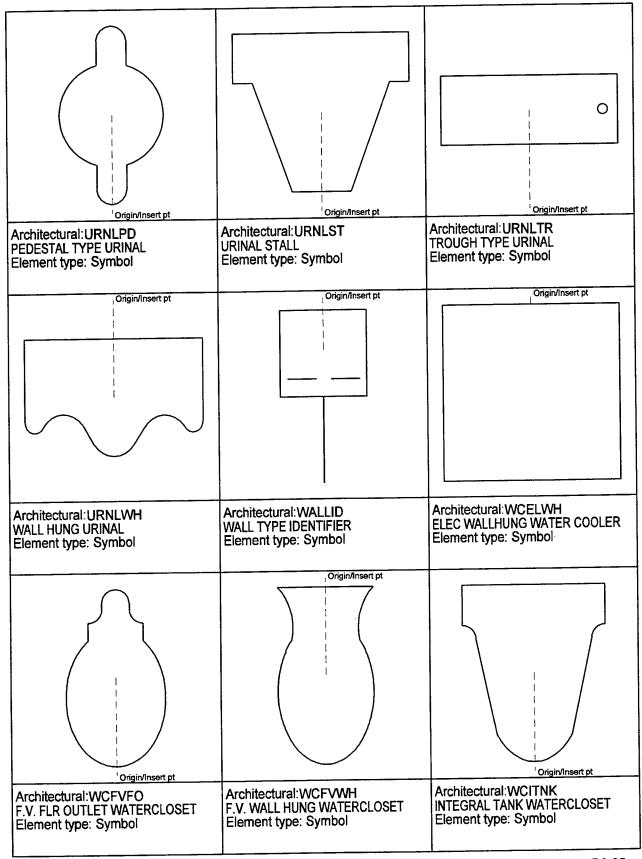
Origin/Insert pt  Architectural: PLPLSS SMSCALE PLASTIC ON PLYWOOD Element type: Symbol	Origin/Insert pt  Architectural: PLYWLS LARGE SCALE PLYWOOD Element type: Symbol	Origin/Insert pt  Architectural: PLYWSS SMALL SCALE PLYWOOD Element type: Symbol
Origin/Insert pt  Architectural:RBIILS RGD BRD INTRR INSUL LRGSC Element type: Symbol	Origin/Insert pt  Architectural: RBISLS INSUL RGDBRD ASSHTHNG LRGSC Element type: Symbol	Origin/Insert pt  Architectural: ROOMID ROOM IDENTIFIER Element type: Symbol
Origin/Insert pt  Architectural: SDIRLD STAIR DIRECTION LINE DOWN Element type: Symbol	Architectural: SDIRLU STAIR DIRECTION LINE UP Element type: Symbol	Architectural: SHWRCO CORNER SHOWER Element type: Symbol

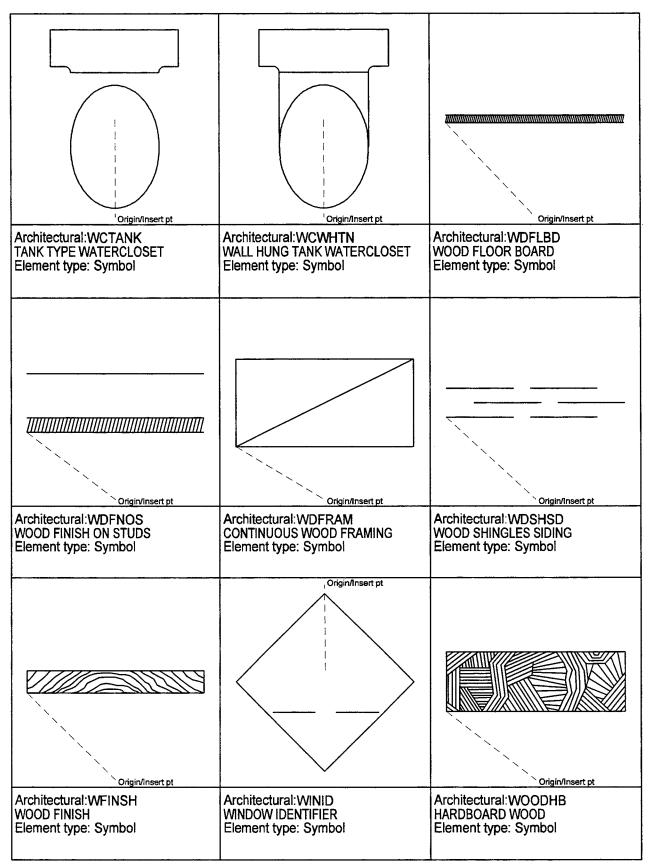


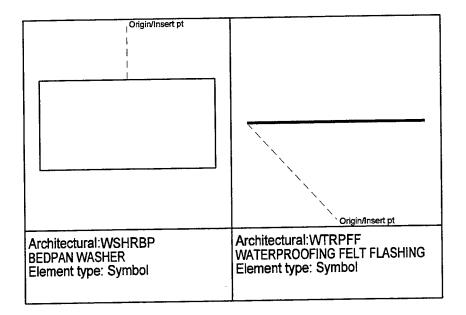




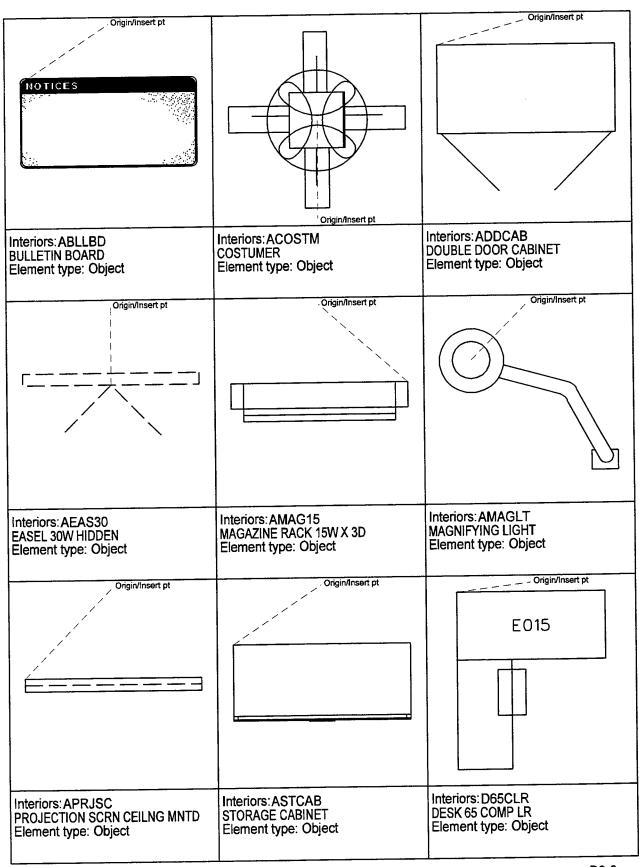


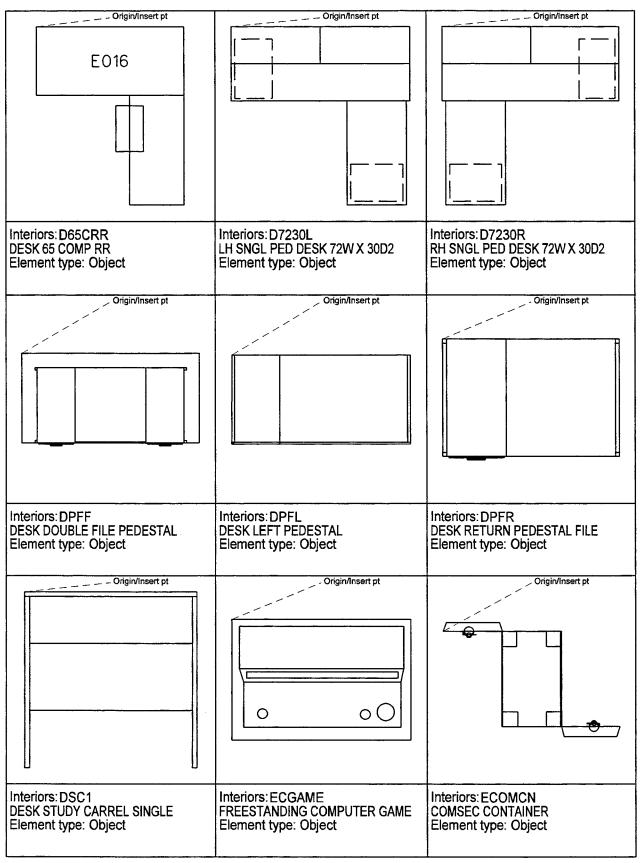


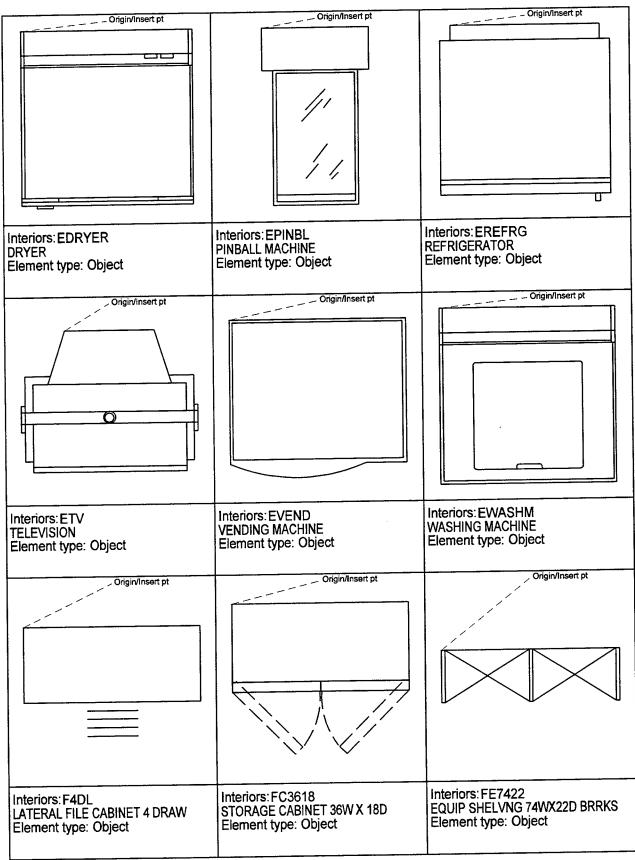


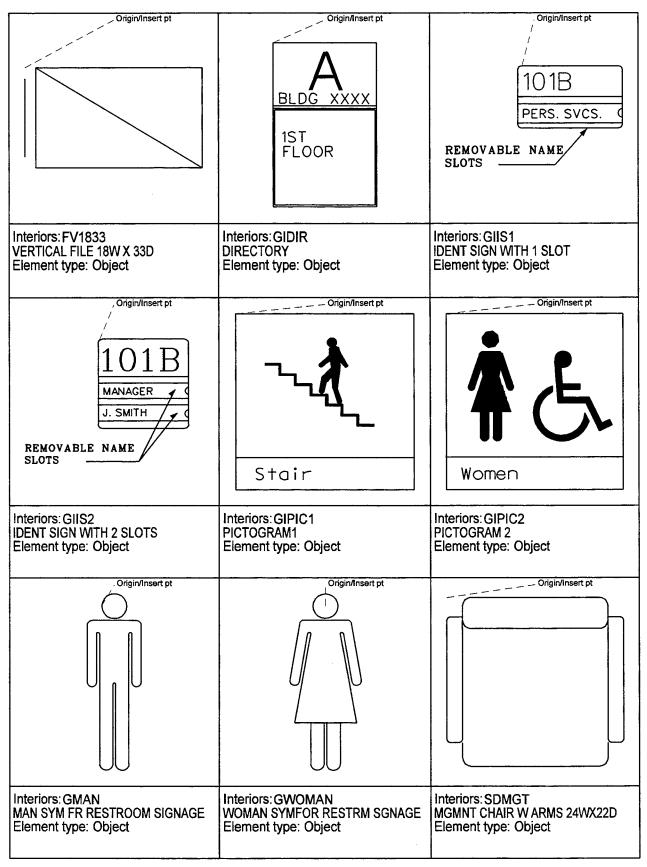


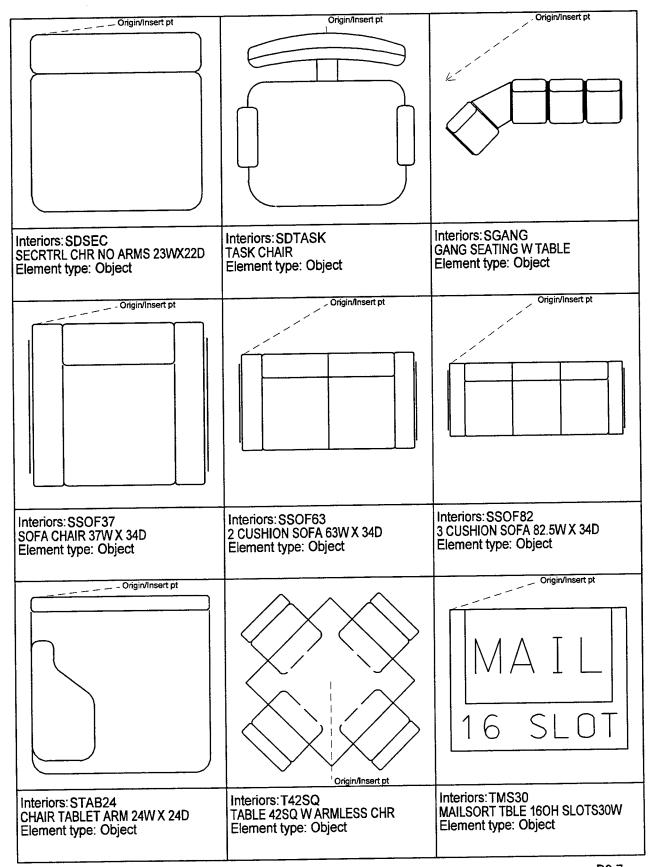
### **9 Interiors Objects Library**

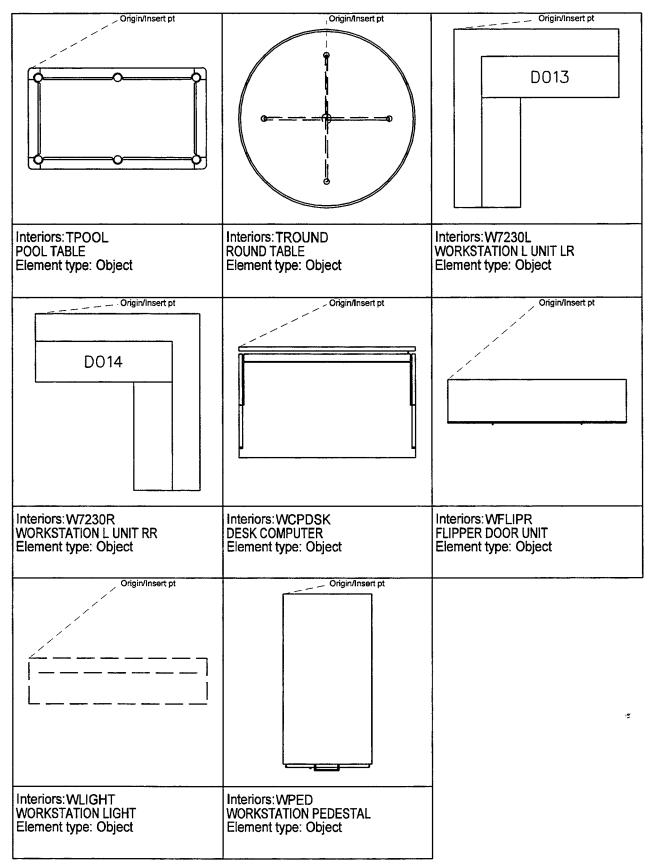




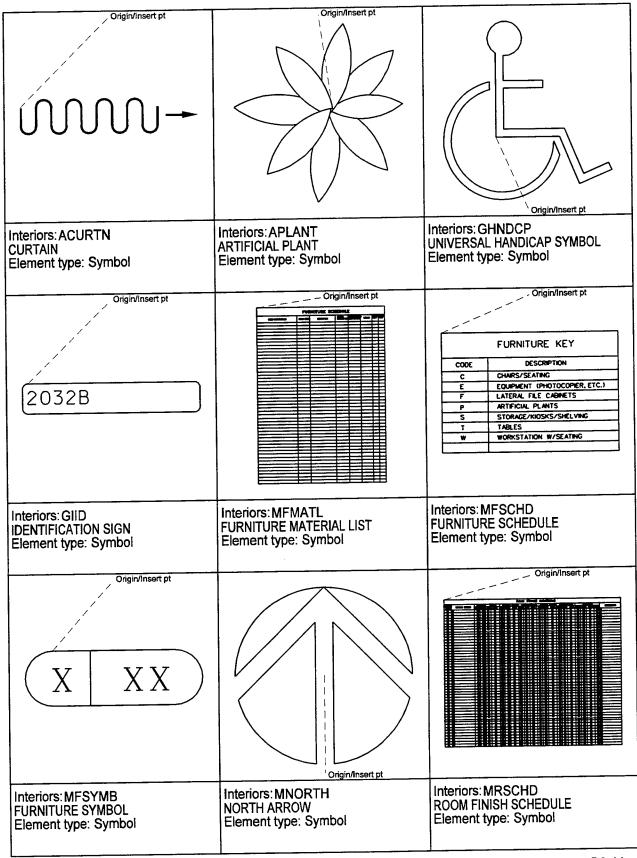








# 9 Interiors Symbols Library



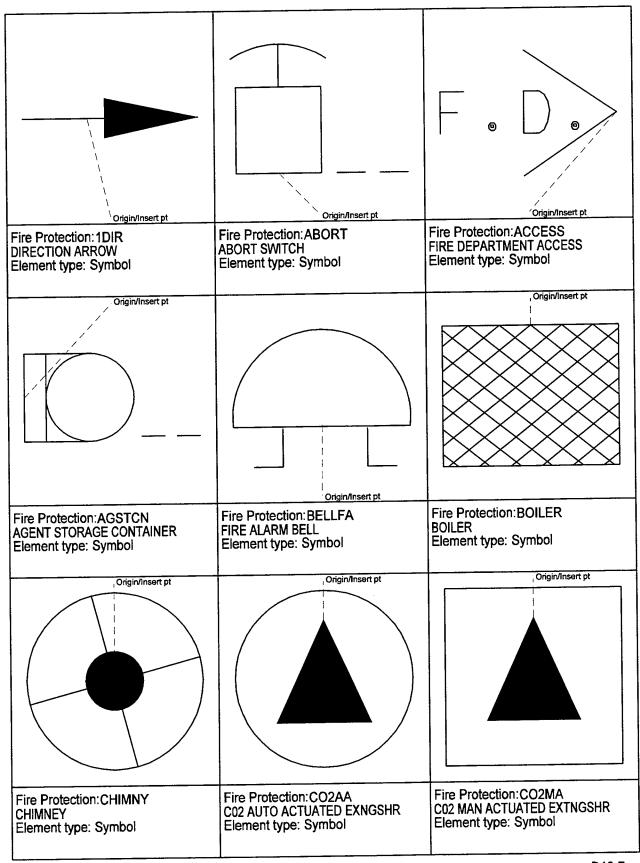
	Origin/Insert pt	
	LEGEND	
TYPE	DESCRIPTION	l
A	DIRECTIONALS	
81	IDENTIFICATION	l
82	ROOM OCCUPANT SIGN	
83	IDENTIFICATION - SERVICE	
C	SERVICE PICTOGRAMS	]
D	EXTERIOR - ENTRANCE	
Ε	EXTERIOR - EXIT	
NUMBER SIGN TYPE SEE SPECIFICATION 10430 AND 10440		

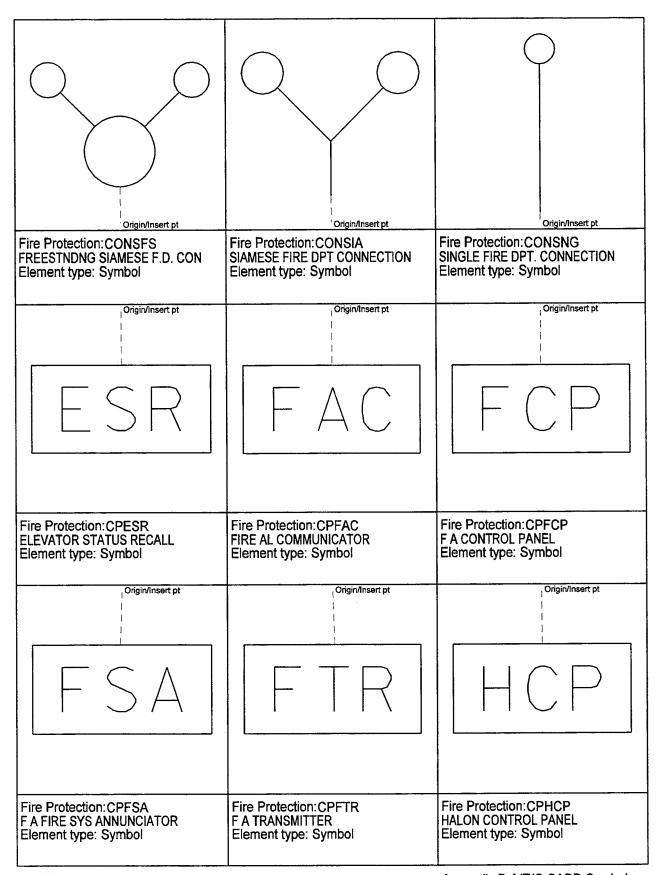
Interiors: MSSCHD SIGNAGE SCHEDULE Element type: Symbol

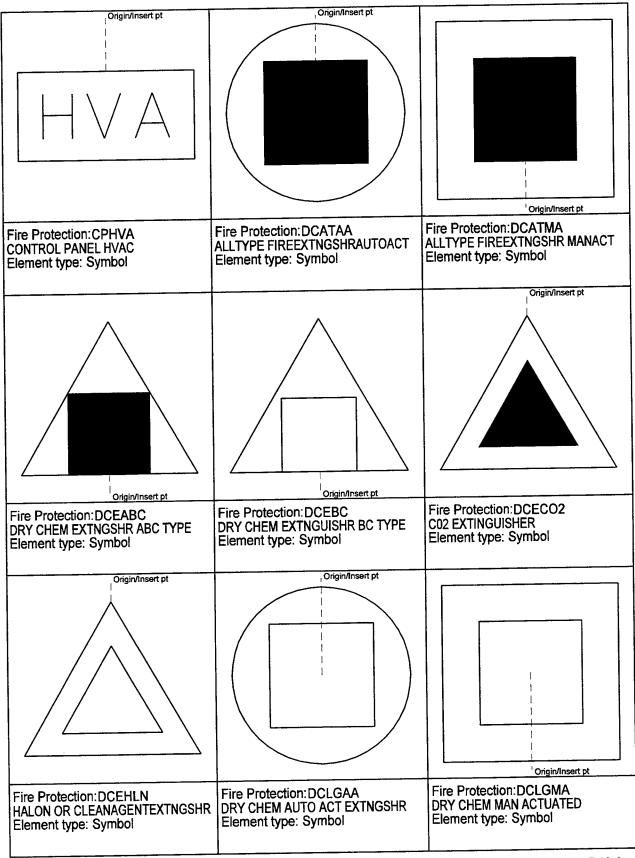
#### **10 Fire Protection Lines Library**

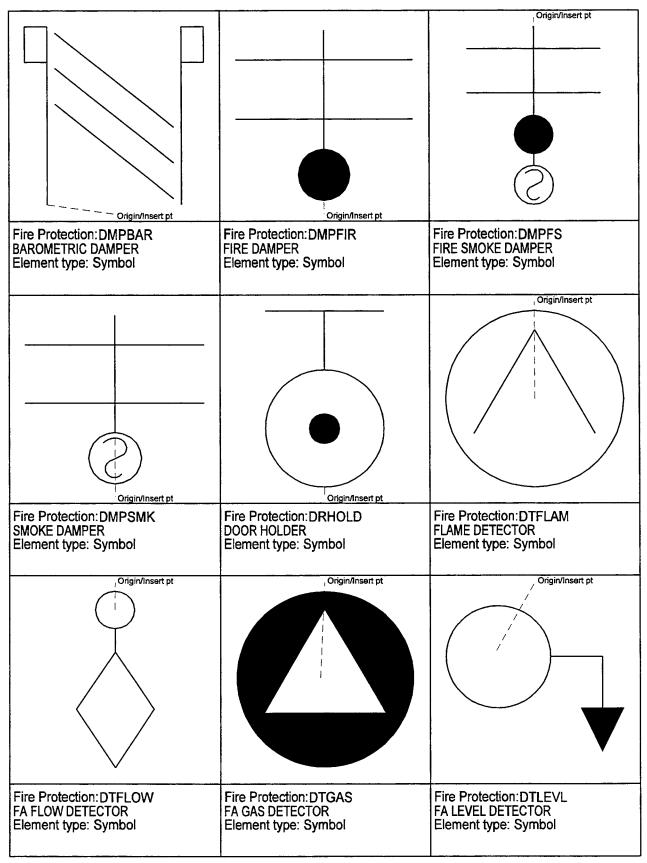
———F——		S
Fire Protection: FIRE FIRE PROTECTION WATR SUPPLY Element type: Line	Fire Protection: MANSUC SUCTION MAIN Element type: Line	Fire Protection: SPRINK MAIN SUPPLY SPRINKLER Element type: Line
—— C S P ——	—— D S P ——	—— W S P ——
Fire Protection: STDCOM COMBINATION STANDPIPE Element type: Line	Fire Protection: STDDRY DRY STANDPIPE Element type: Line	Fire Protection: STDWET WET STANDPIPE Element type: Line

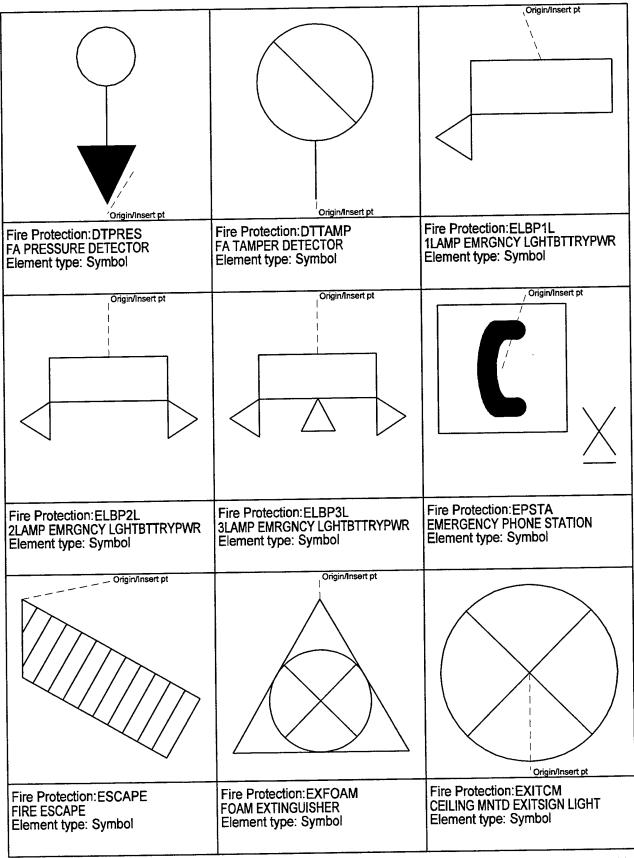
### 10 Fire Protection Symbols Library

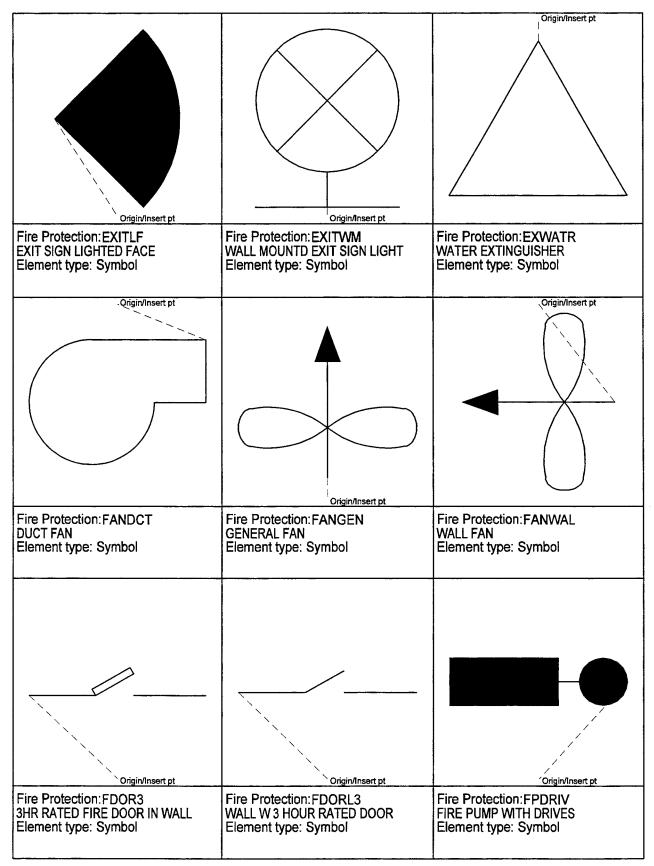


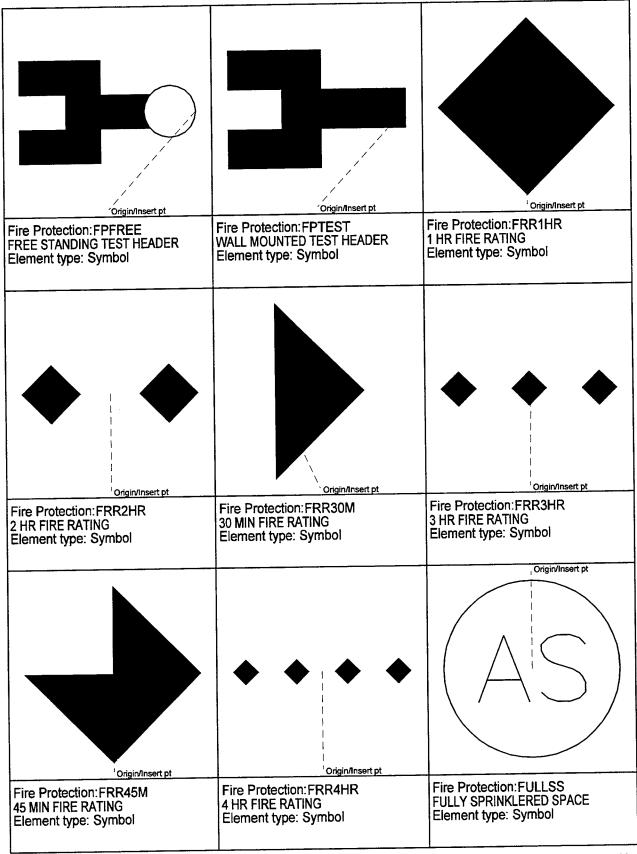


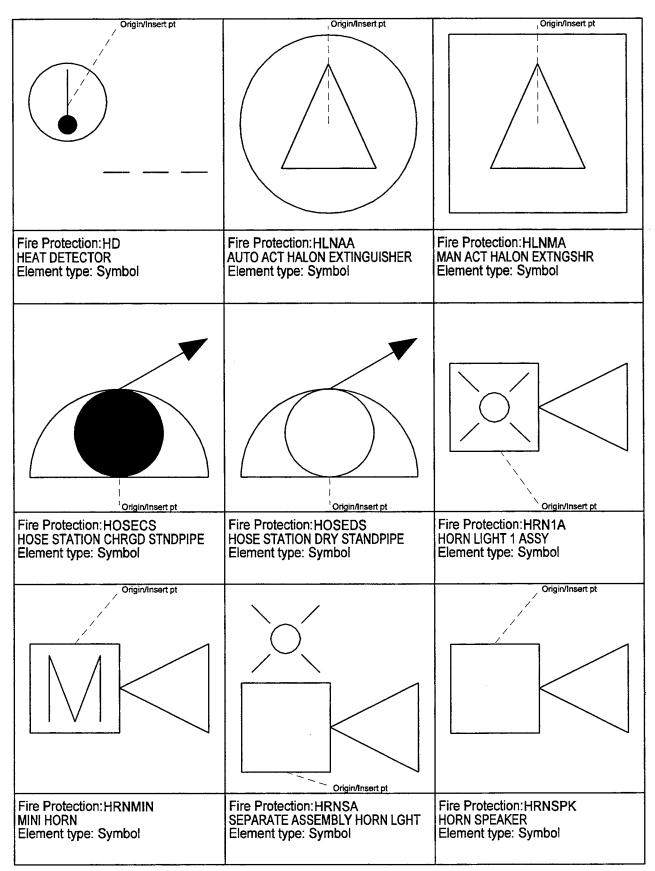


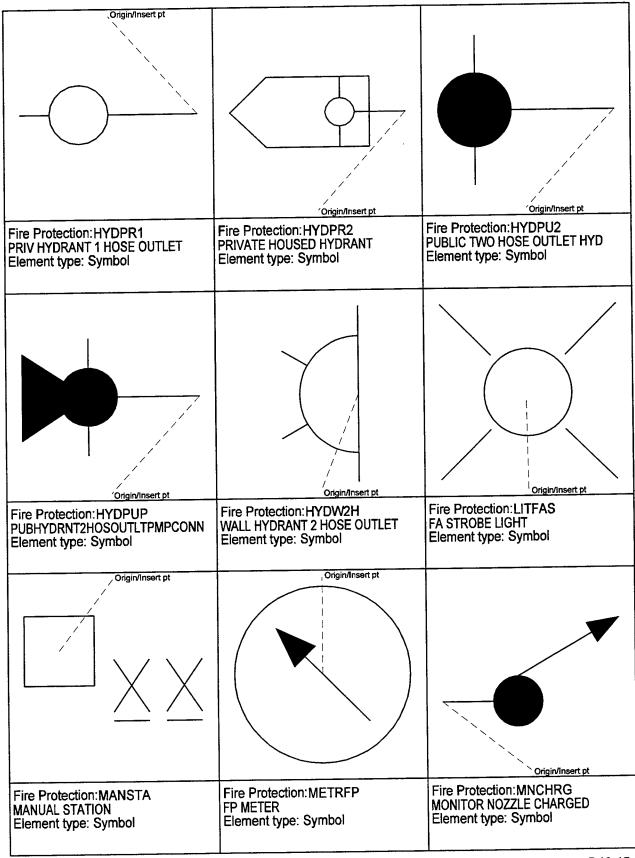


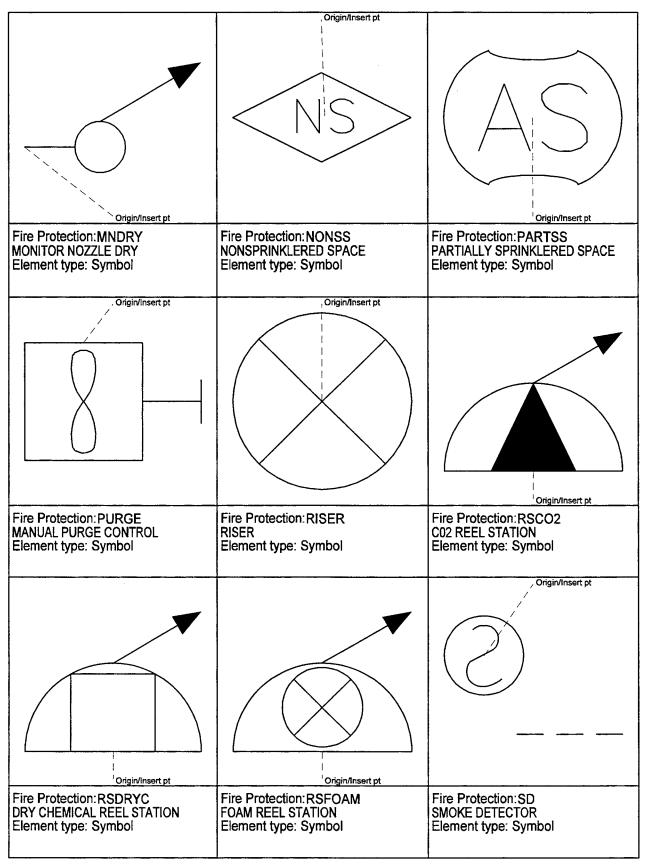


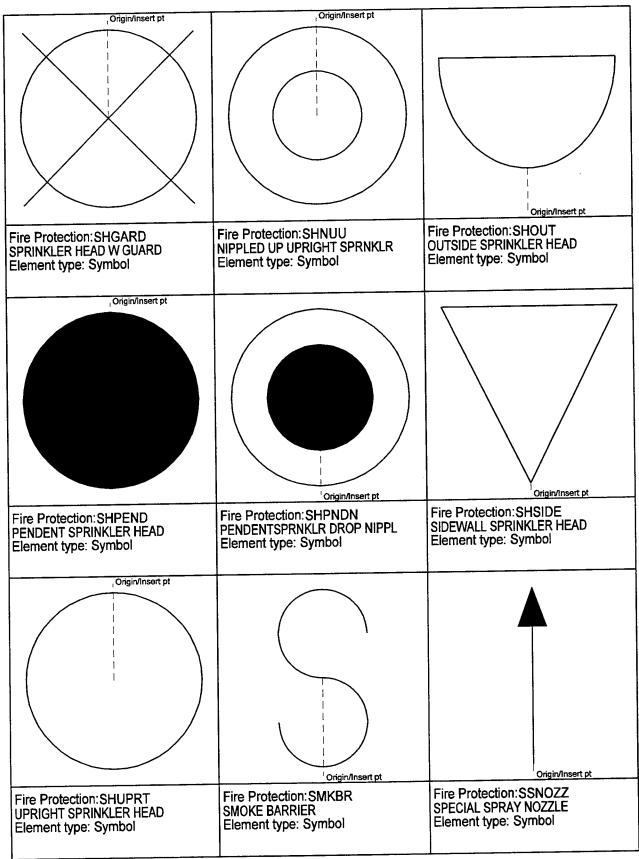


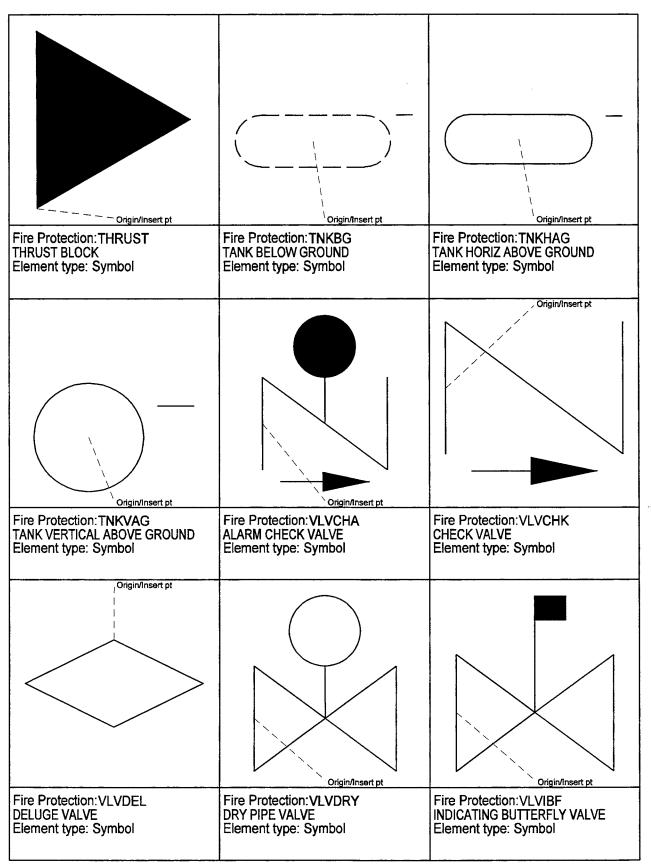


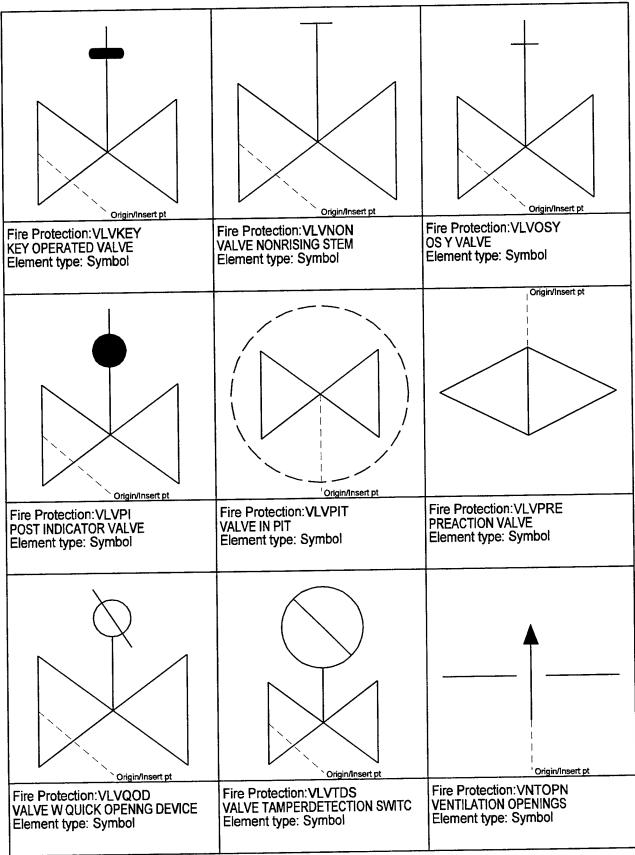


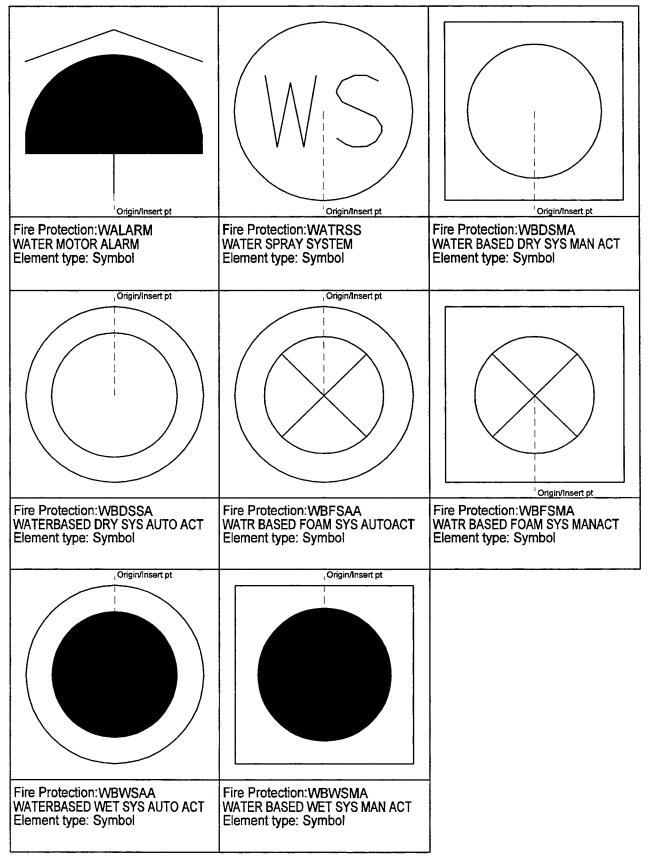












# 11 Plumbing Lines Library

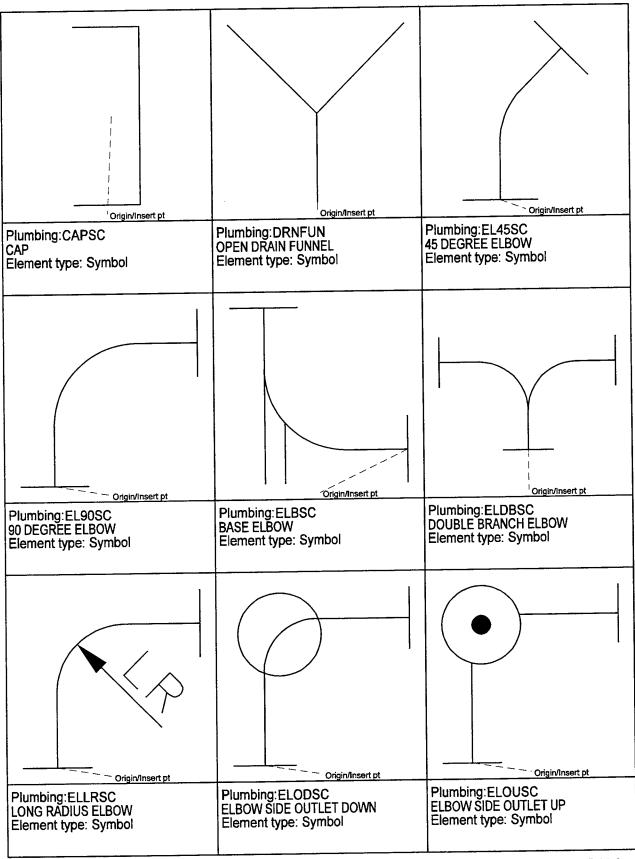
	· · · · · · · · · · · · · · · · · · ·	
——— C D ———		——— А
Plumbing:CDRNAF CONDENSATE DRAIN Element type: Line	Plumbing:CLDWTR POTABLE COLD WATER Element type: Line	Plumbing:CMPAIR COMPRESSED AIR Element type: Line
—— D E ——	——— D I ———	F
Plumbing:DIOWTR DEIONIZED WATER Element type: Line	Plumbing:DSTWTR DISTILLED WATER Element type: Line	Plumbing:FIRE FIRE PROTECTION WATR SUPPLY Element type: Line
—— F O R ——	——FOS——	—— F O V ———
Plumbing:FUELOR FUEL OIL RETURN Element type: Line	Plumbing:FUELOS FUEL OIL SUPPLY Element type: Line	Plumbing:FUELOV FUEL OIL TANK VENT Element type: Line

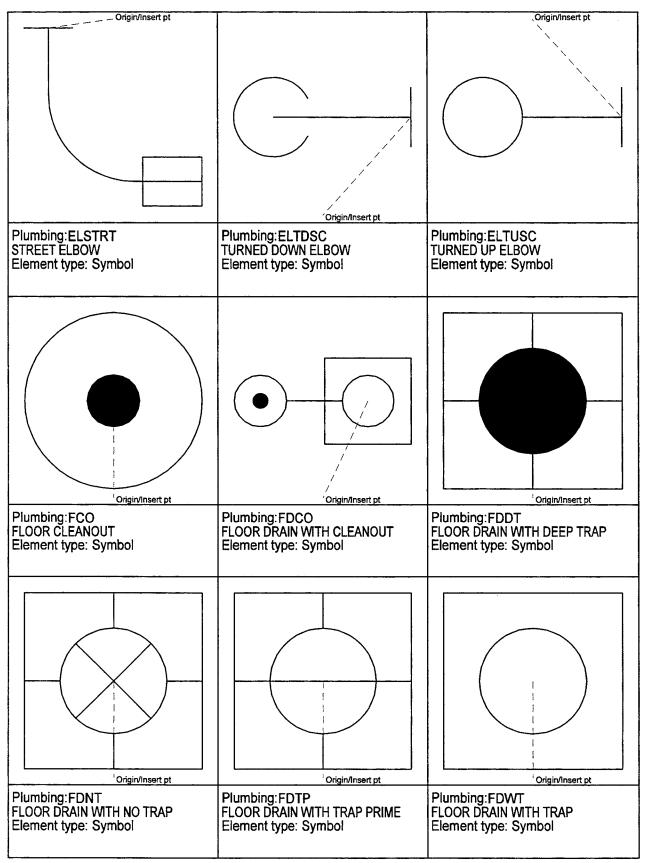
Н Е		
Plumbing:HELIUM HELIUM Element type: Line	Plumbing:HWTR POTABLE HOT WATER Element type: Line	Plumbing:HWTRR POTABLE HOT WATER RETURN Element type: Line
——— Н	—— I C W ———	—— I H R ———
Plumbing:HYDRGN HYDROGEN Element type: Line	Plumbing:ICWTR INDUSTRIAL COLD WATER Element type: Line	Plumbing:IHWTRR INDUSTRIAL HOT WATER RETURN Element type: Line
—— I H W ——	——— I D ———	——— L N ———
Plumbing:IHWTRS INDUSTRIAL HOT WATER SUPPLY Element type: Line	Plumbing: INDDRN INDIRECT DRAIN Element type: Line	Plumbing:LIQNIT LIQUID NITROGEN Element type: Line

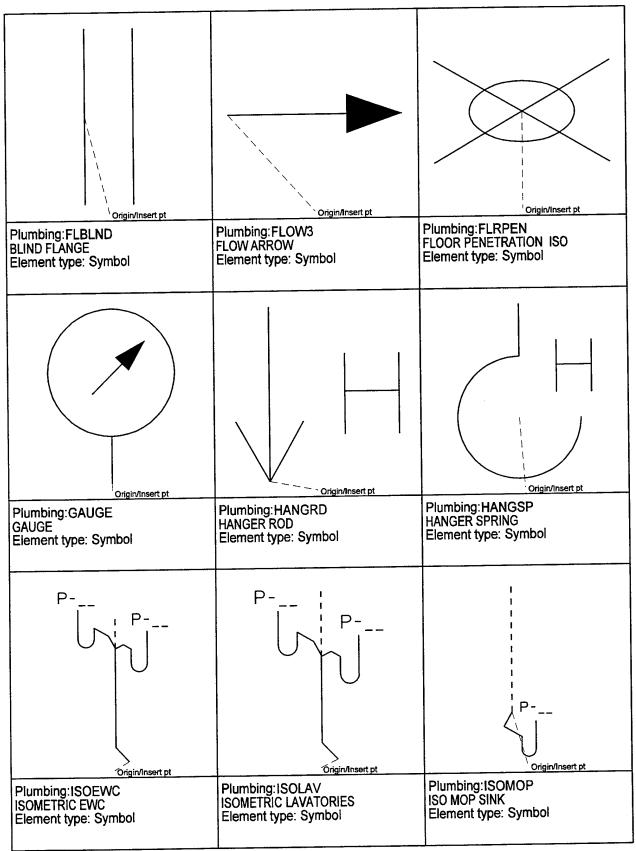
—— L O X ——	——— L P G ———	—— N O ———
Plumbing:LIQOXY LIQUID OXYGEN Element type: Line	Plumbing:LIQPET LIQUID PETROLEUM GAS Element type: Line	Plumbing:NITOXI NITROUS OXIDE Element type: Line
N	——— N P W ———	——— G ———
Plumbing:NITROG NITROGEN Element type: Line	Plumbing: NONPOT NONPOTABLE WATER Element type: Line	Plumbing:NTGASN NATURAL GAS Element type: Line
OX	——— P N ———	
Plumbing:OXYGEN OXYGEN Element type: Line	Plumbing: PNTUBE PNEUMATIC TUBE RUNS Element type: Line	Plumbing:ROOFDN ROOF DRAIN Element type: Line

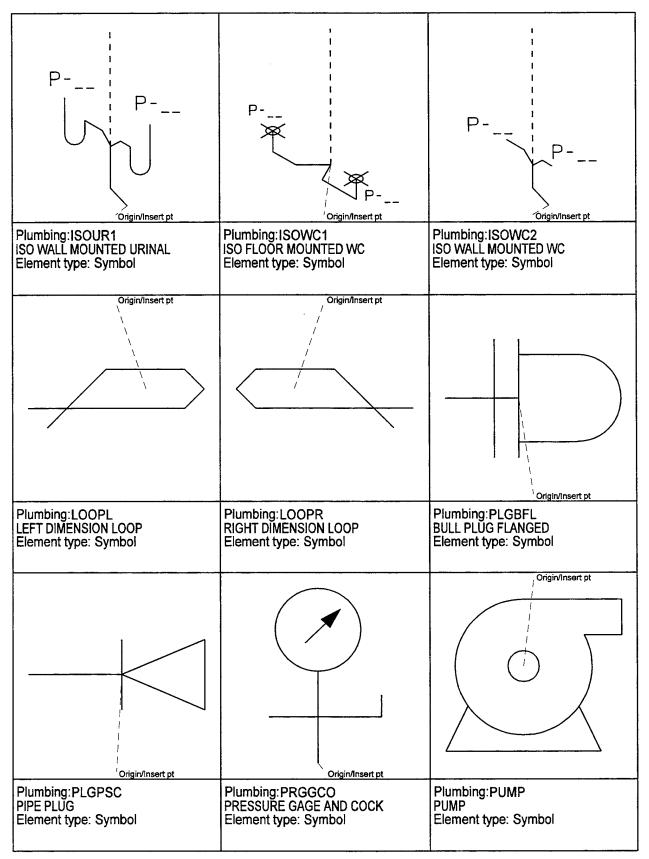
——————————————————————————————————————		/
Plumbing:SFCWTR SOFT WATER Element type: Line	Plumbing:SHWTRR SANITIZING HOT WATER RETURN Element type: Line	Plumbing:SHWTRS SANITIZING HOT WATER SUPPLY Element type: Line
S S	S D	—— V A C ——
Plumbing:SSWAF SANITARY SEWER Element type: Line	Plumbing:STRAF STORM DRAIN Element type: Line	Plumbing:VACAIR VACUUM AIR Element type: Line
	S V	
Plumbing:VENT VENT Element type: Line	Plumbing:VENTWS VENT AND WASTE COMBINATION Element type: Line	

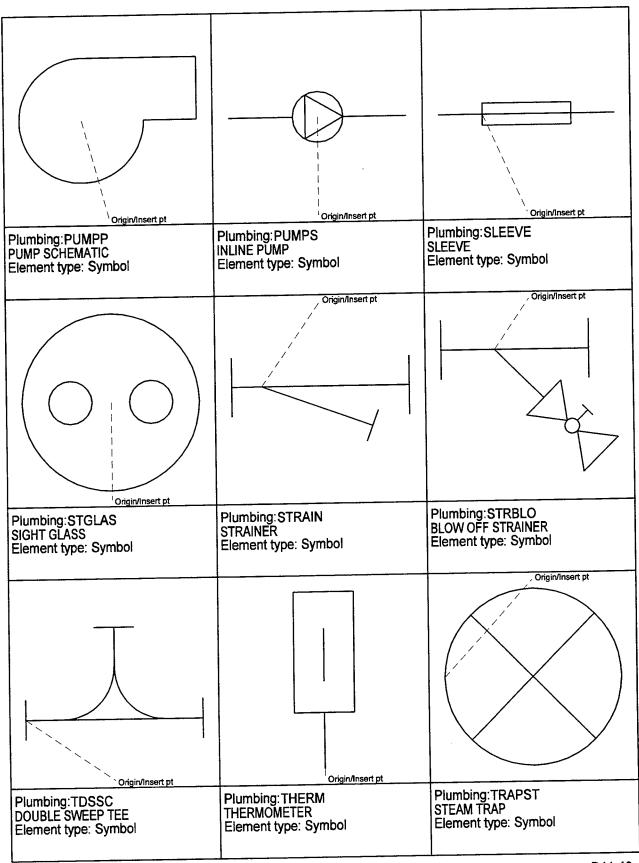
# 11 Plumbing Symbols Library

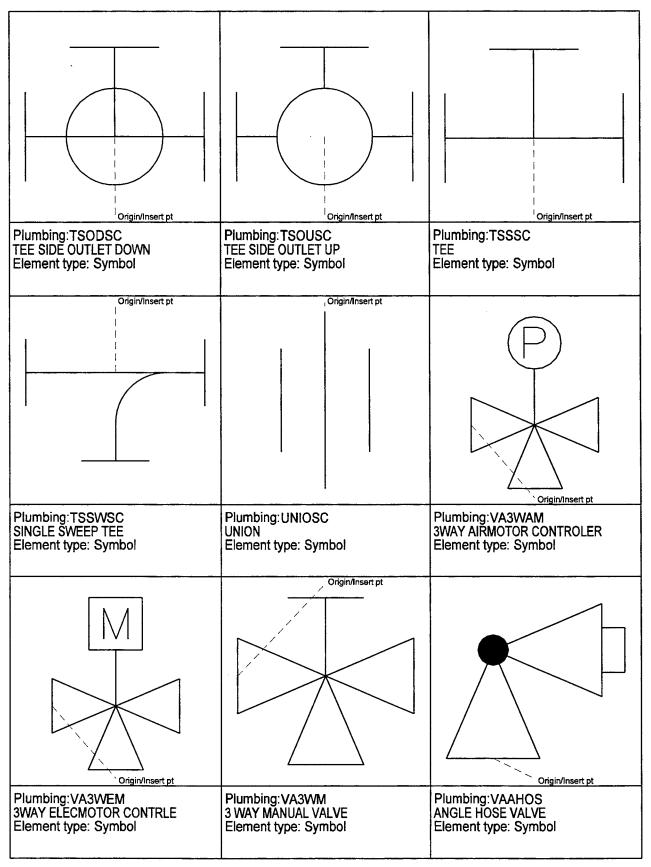


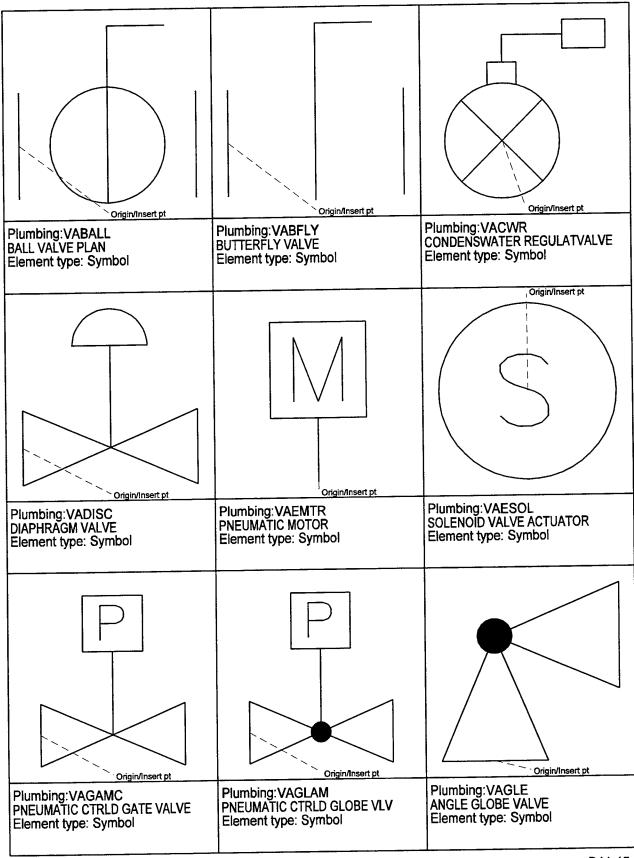


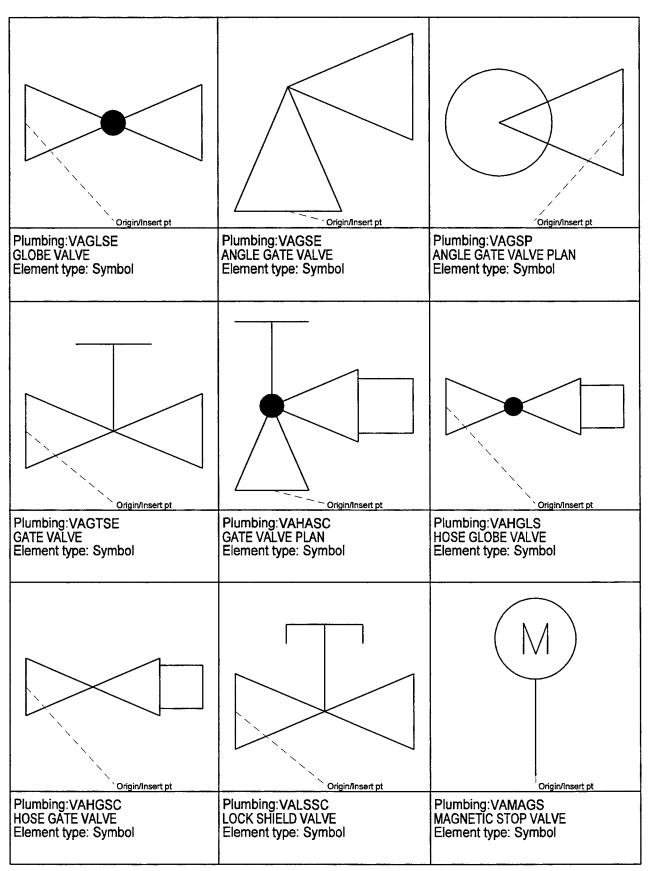


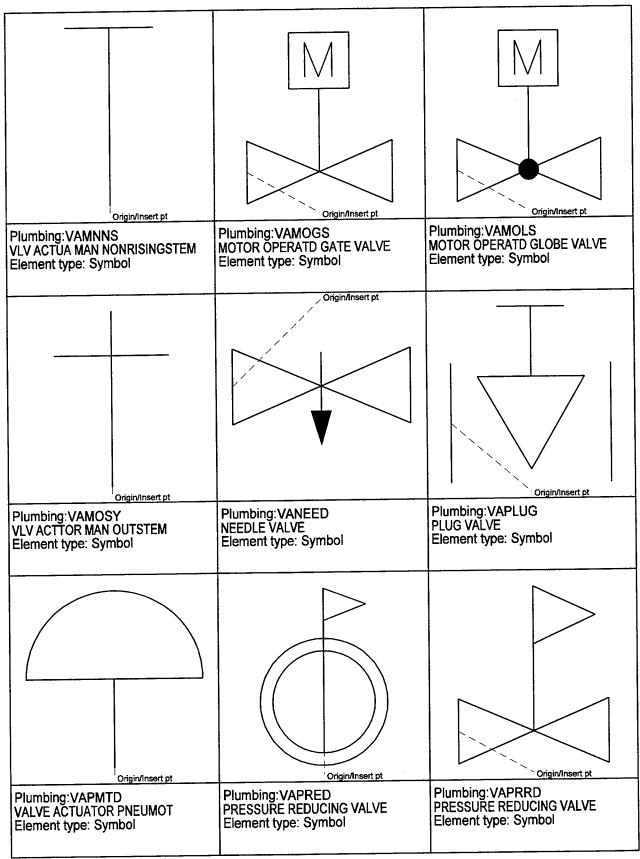


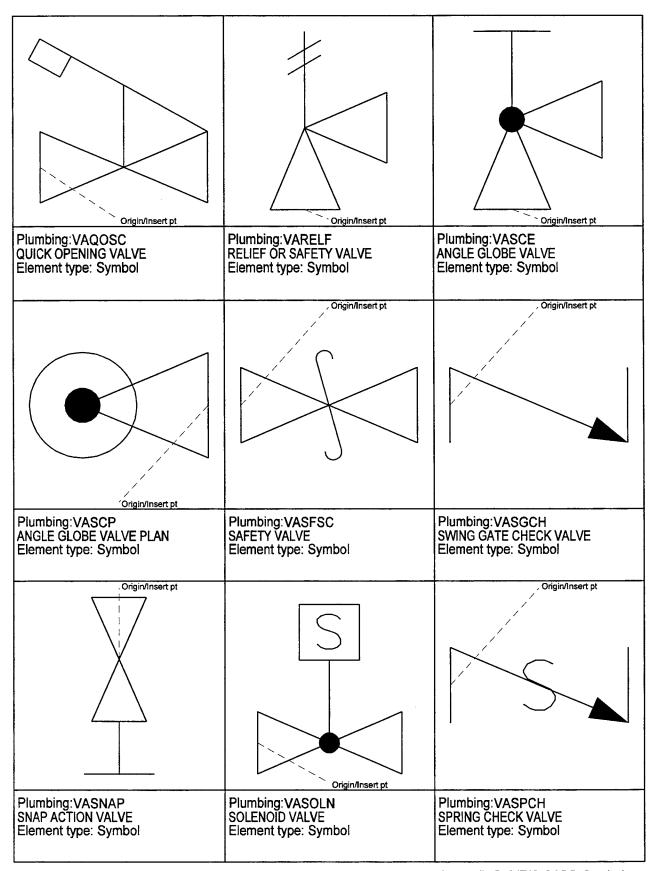


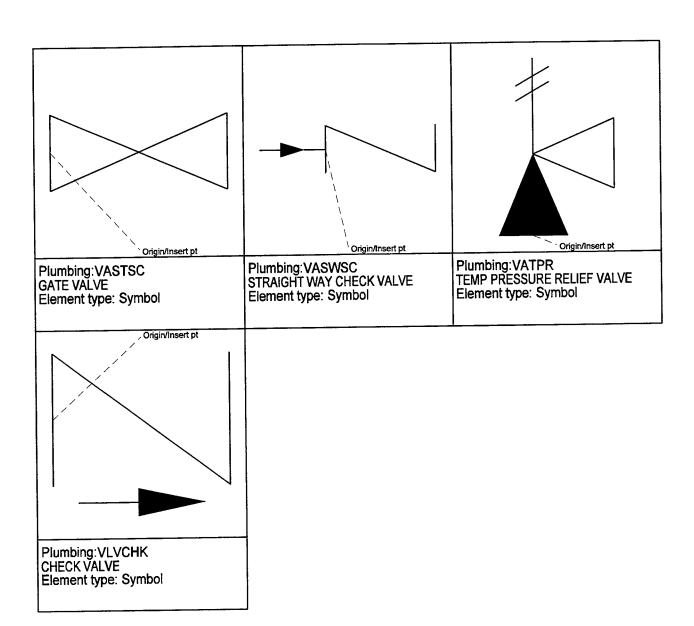












## 12 Mechanical Lines Library

	<del></del>	
—— A C I D ——	——— A Т V ———	—— ВВО——
Mechanical: ACIDWS ACID WASTE Element type: Line	Mechanical:AIRRLF ATMOSPHERIC VENT Element type: Line	Mechanical: BOILBD BOILER BLOW DOWN Element type: Line
—— В R ——	——— В ———	——————————————————————————————————————
Mechanical: BRINER BRINE RETURN Element type: Line	Mechanical: BRINES BRINE SUPPLY Element type: Line	Mechanical: CDRNAF CONDENSATE DRAIN Element type: Line
——— A ———	——————————————————————————————————————	——————————————————————————————————————
Mechanical: CMPAIR COMPRESSED AIR Element type: Line	Mechanical: CONDP PUMPED CONDENSATE Element type: Line	Mechanical: CONDWR CONDENSER WATER RETURN Element type: Line

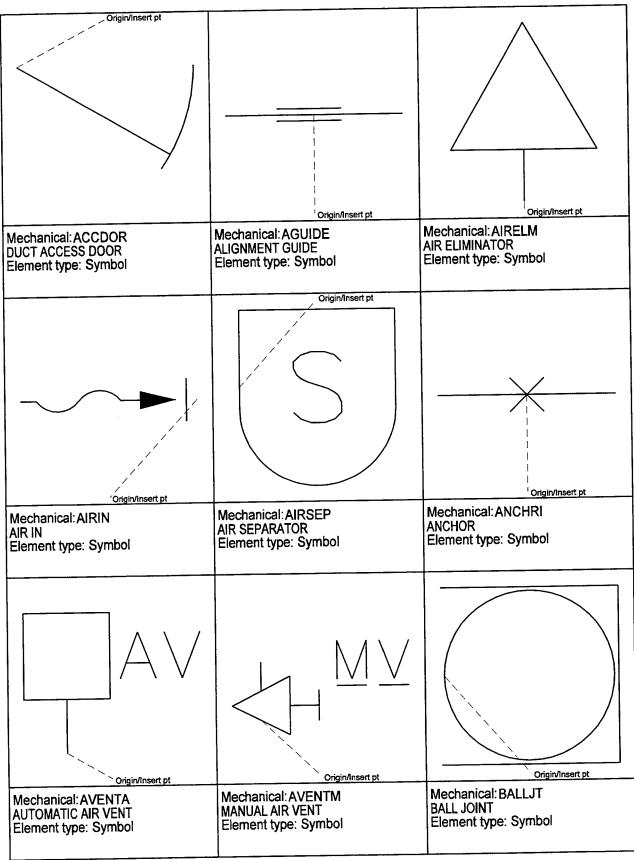
C	——————————————————————————————————————	——————————————————————————————————————
Mechanical: CONDWS CONDENSER WATER SUPPLY Element type: Line	Mechanical: CWR CHILLED WATER RETURN Element type: Line	Mechanical: CWS CHILLED WATER SUPPLY Element type: Line
—— нс п	—— H С S ——	FILL
Mechanical: DTR DUAL TEMPERATURE RETURN Element type: Line	Mechanical: DTS DUAL TEMPERATURE SUPPLY Element type: Line	Mechanical: FILL FILL LINE Element type: Line
—— G H R ———	——— G H S ———	—— НРС——
Mechanical: GHR GLYCOL HEATING RETURN Element type: Line	Mechanical: GHS GLYCOL HEATING SUPPLY Element type: Line	Mechanical: HPCNDR HIGH PRESSURE CONDENSATE Element type: Line

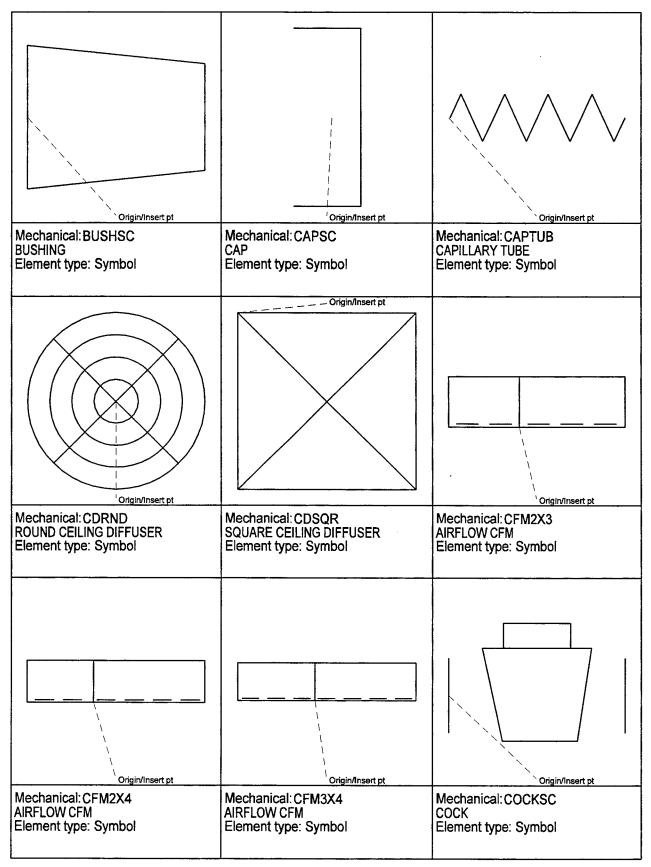
—— н Т <b>w</b> R ——	—— Н Т W S ——	——— H
Mechanical: HTHWR HIGH TEMP HOT WATER RETURN Element type: Line	Mechanical: HTHWS HIGH TEMP HOT WATER SUPPLY Element type: Line	Mechanical: HUMID HUMIDIFICATION LINE Element type: Line
——— H W R ———	——— H W S ———	——————————————————————————————————————
Mechanical: HWR LOW TEMP HOT WATER RETURN Element type: Line	Mechanical: HWS LOW TEMP HOT WATER SUPPLY Element type: Line	Mechanical: ICWTR INDUSTRIAL COLD WATER Element type: Line
——————————————————————————————————————	——— I H W ———	I W
Mechanical: IHWTRR INDUSTRIAL HOT WATER RETURN Element type: Line	Mechanical: IHWTRS INDUSTRIAL HOT WATER SUPPLY Element type: Line	Mechanical:IWASTE INDUSTRIAL WASTE Element type: Line

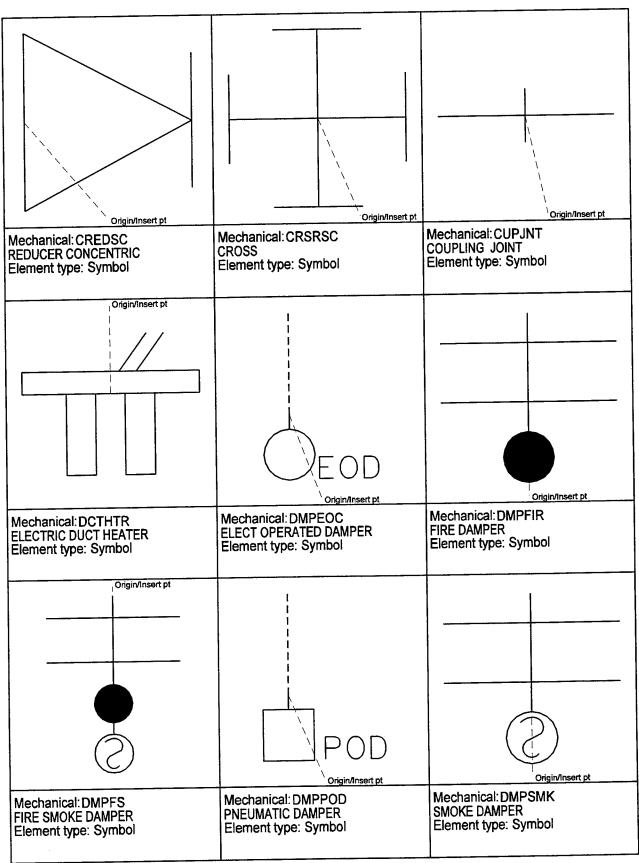
—— L P C ——	——— М U ————	—— м Р С ——
Mechanical: LPCNDR LOW PRESSURE CONDENSATE Element type: Line	Mechanical: MAKEUP MAKEUP WATER Element type: Line	Mechanical: MPCNDR MED PRESSURE CONDENSATE Element type: Line
—— M T W R ——	—— M T W S ——	—— N P W ——
Mechanical: MTHWR MED TEMP HOT WATER RETURN Element type: Line	Mechanical: MTHWS MED TEMP HOT WATER SUPPLY Element type: Line	Mechanical: NONPOT NONPOTABLE WATER Element type: Line
——————————————————————————————————————		
Mechanical: PNTUBE PNEUMATIC TUBE RUNS Element type: Line	Mechanical: REFRL REFRIGERANT LIQUID Element type: Line	Mechanical: REFRS REFRIGERANT SUCTION Element type: Line

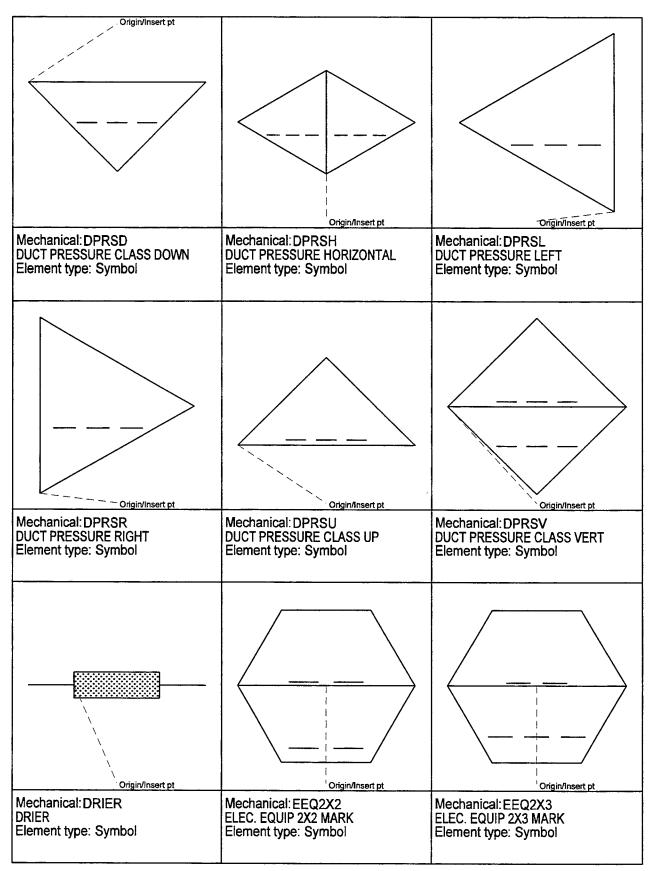
—— НРЅ——	—— L P S ——	——МРЅ——
Mechanical: STEAMH HIGH PRESSURE STEAM Element type: Line	Mechanical: STEAML LOW PRESSURE STEAM Element type: Line	Mechanical: STEAMM MED PRESSURE STEAM Element type: Line
( ( ( ( ( (	—— V A C ——	—— V P D ———
Mechanical:TUVANE TURNING VANES Element type: Line	Mechanical: VACAIR VACUUM AIR Element type: Line	Mechanical: VACPD VACUUM PUMP DISCHARGE Element type: Line

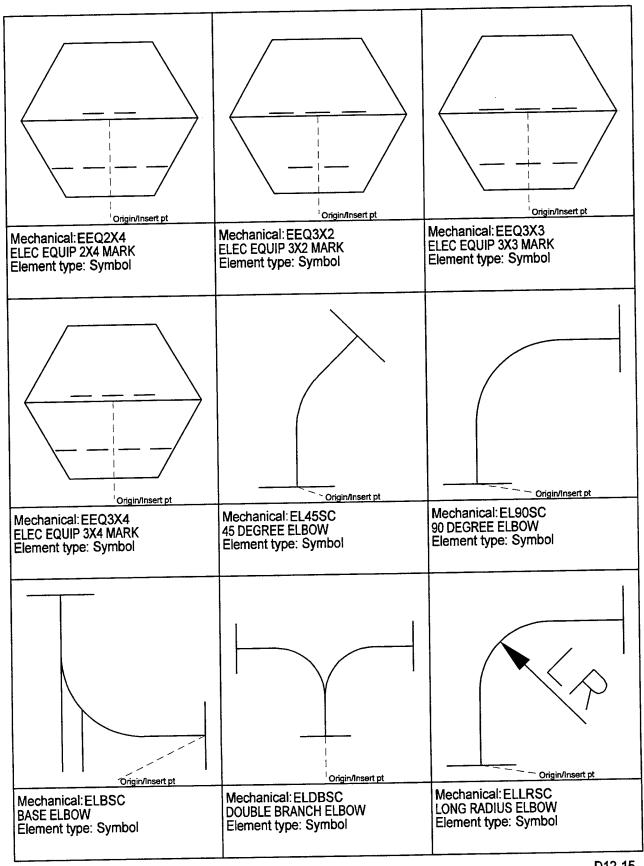
## 12 Mechanical Symbols Library

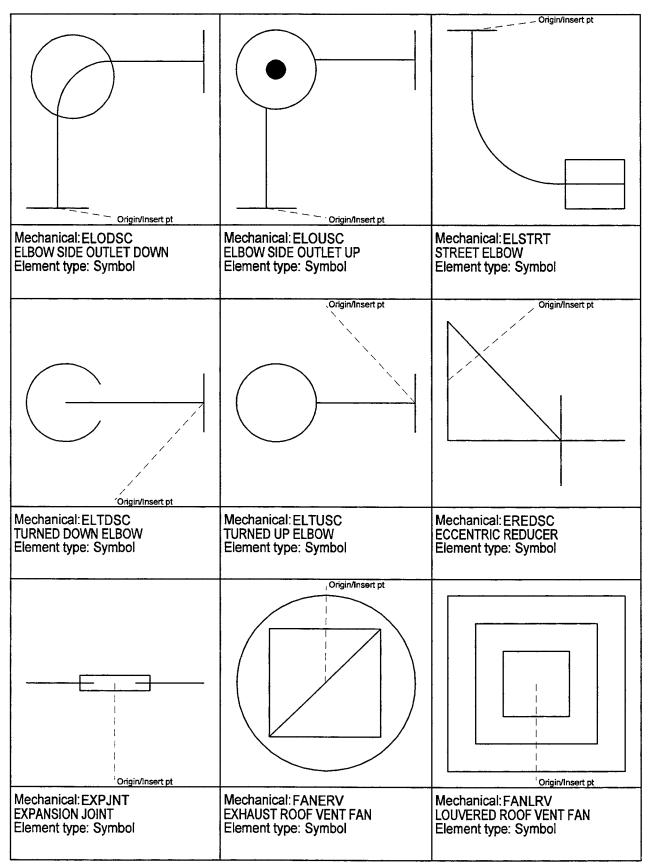


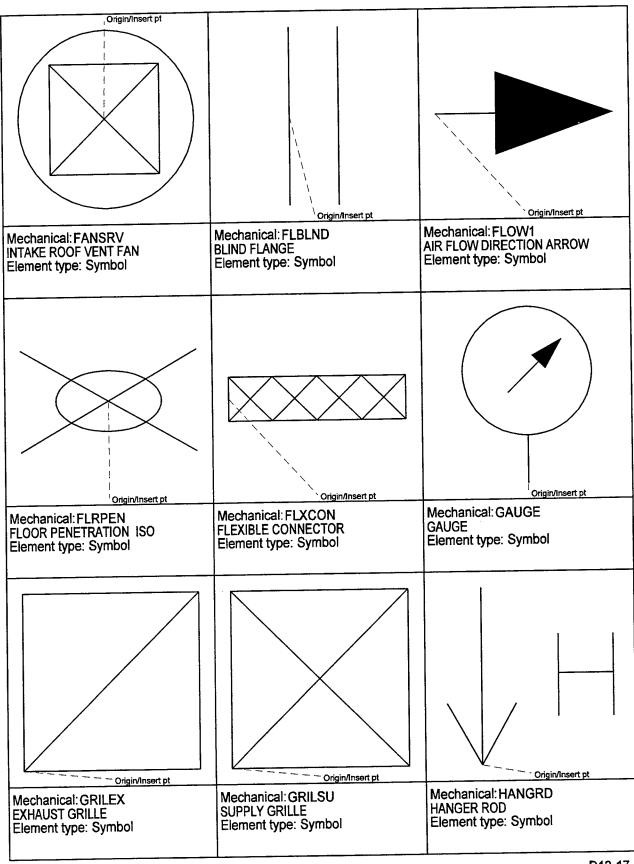


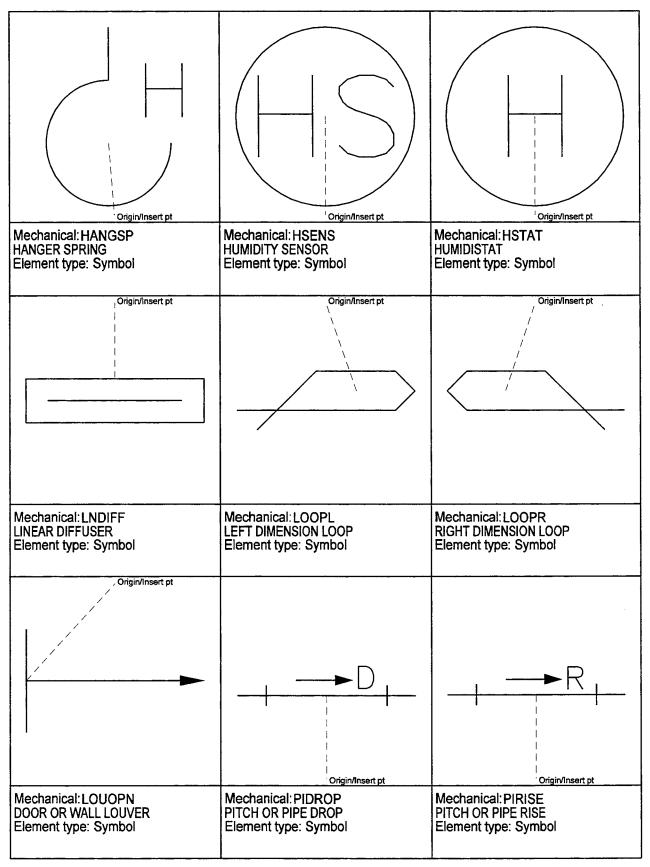


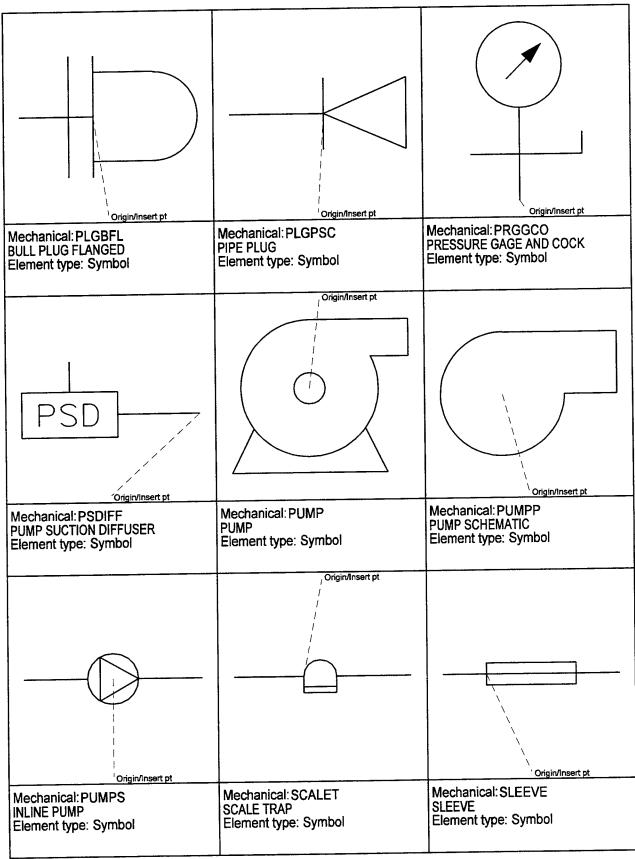


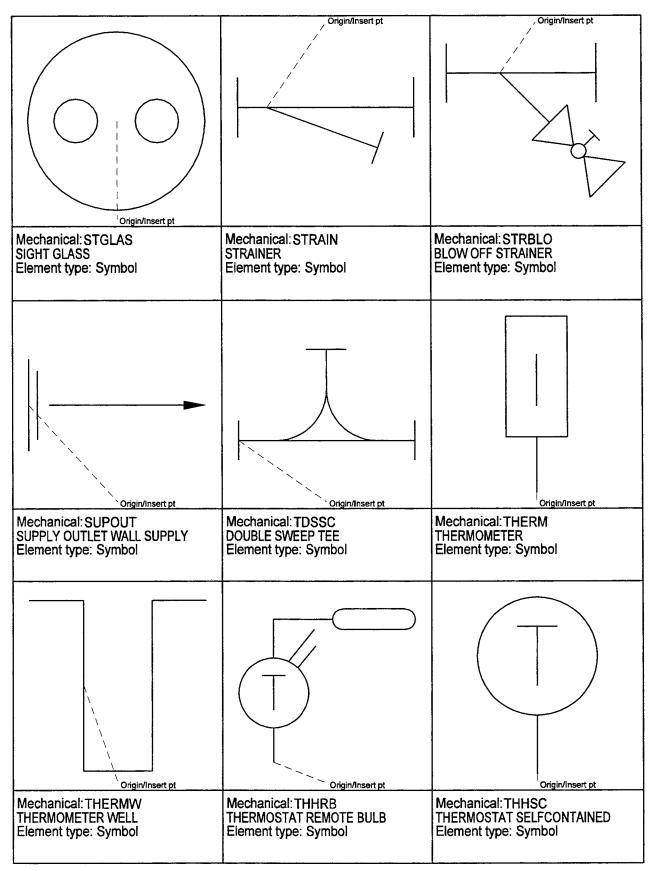


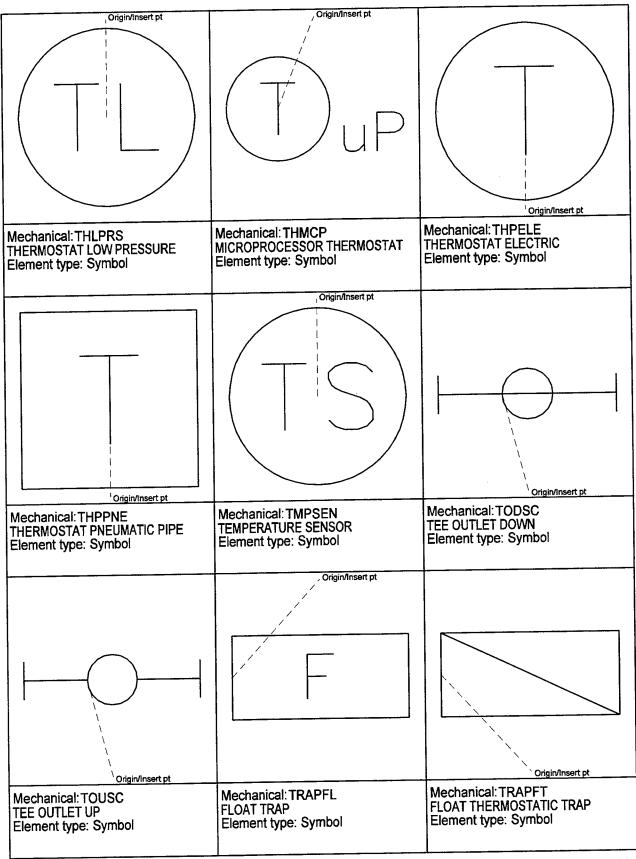


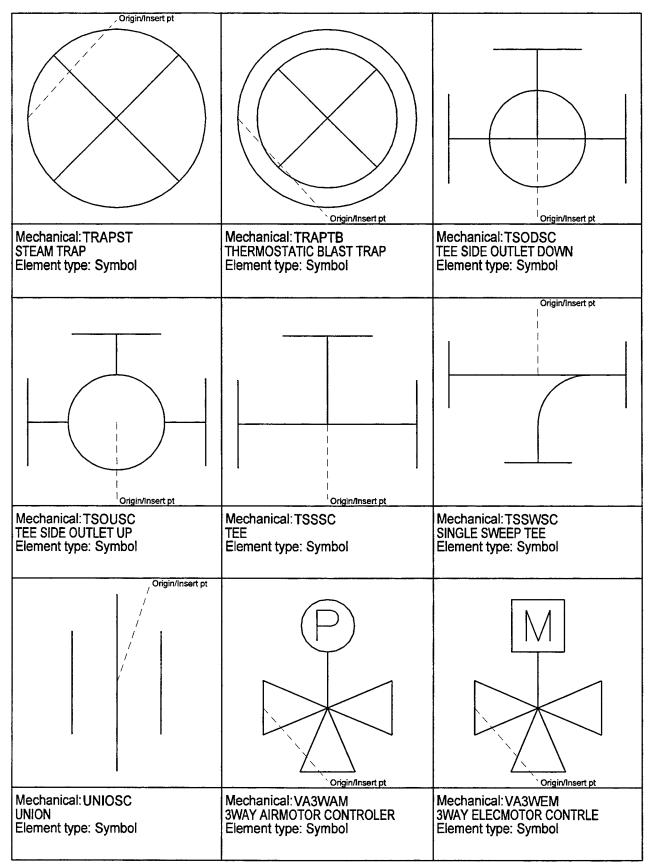


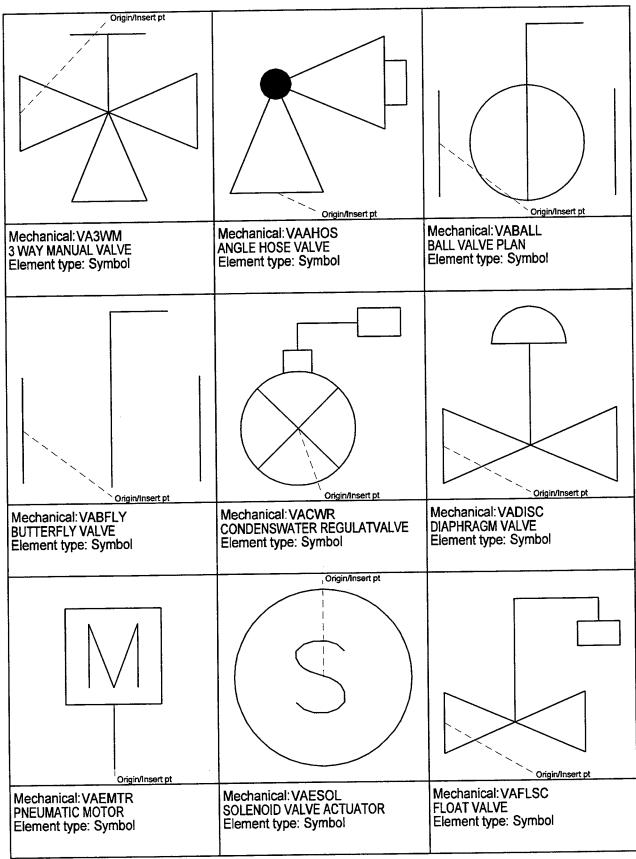


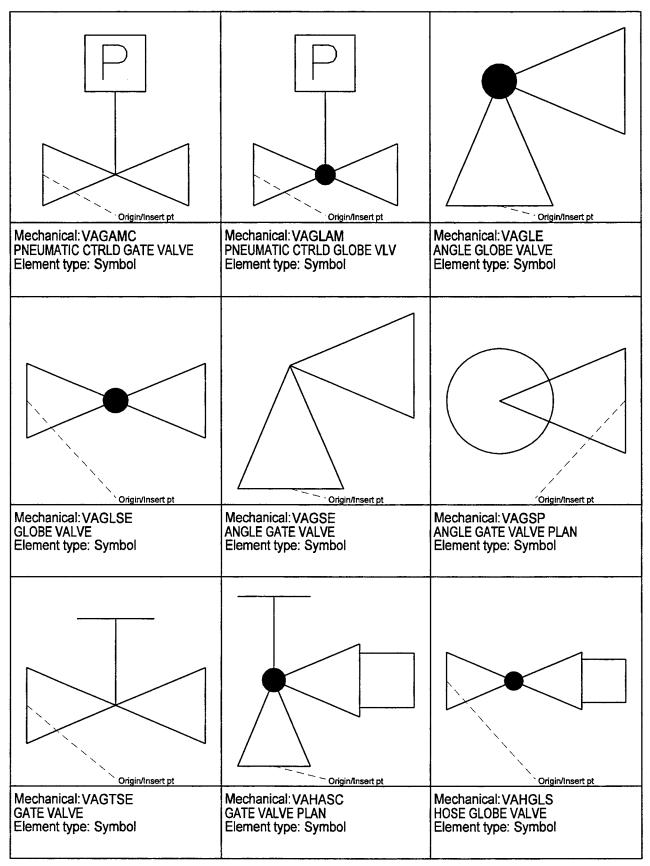


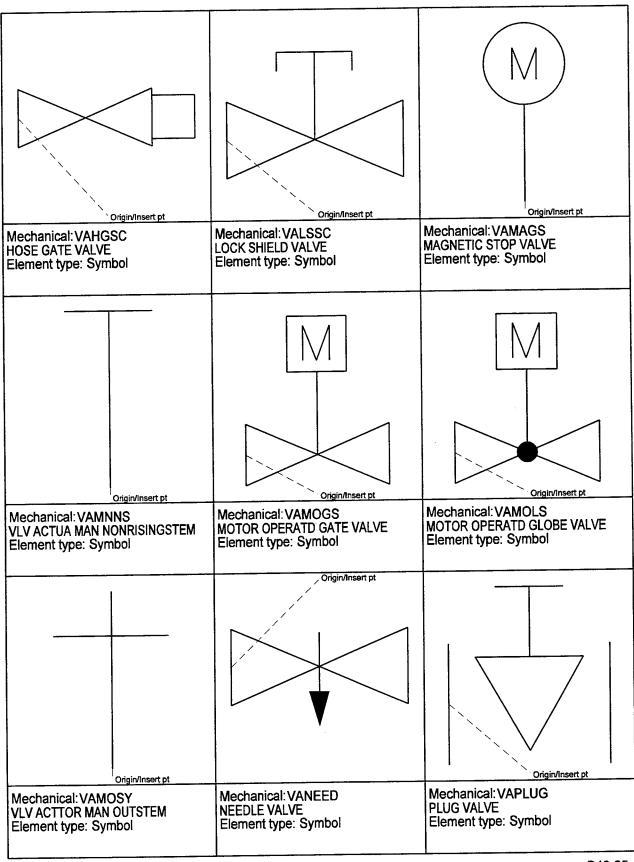


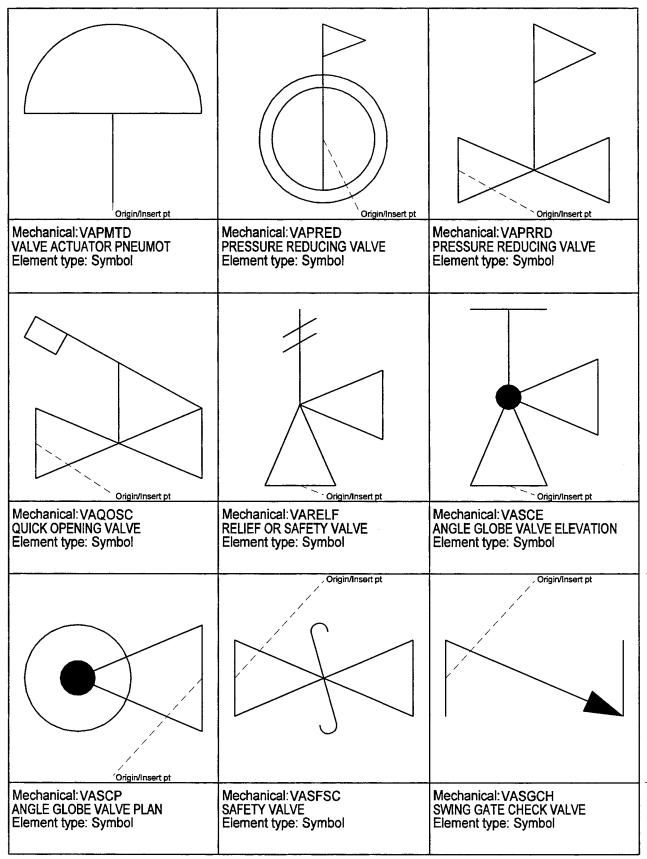


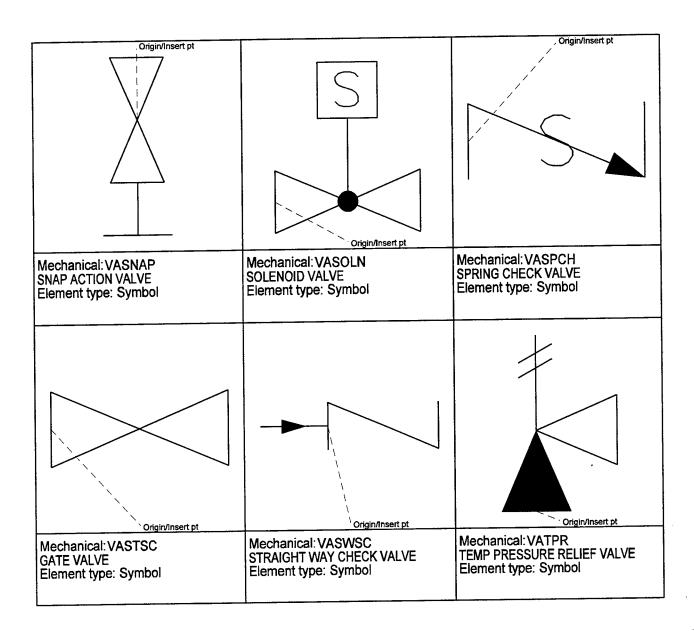












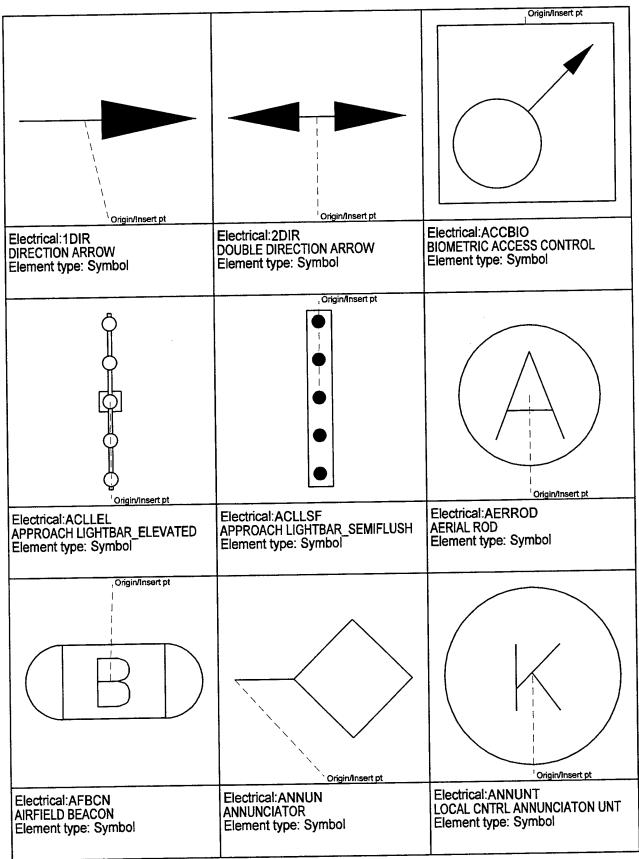
## **13 Electrical Lines Library**

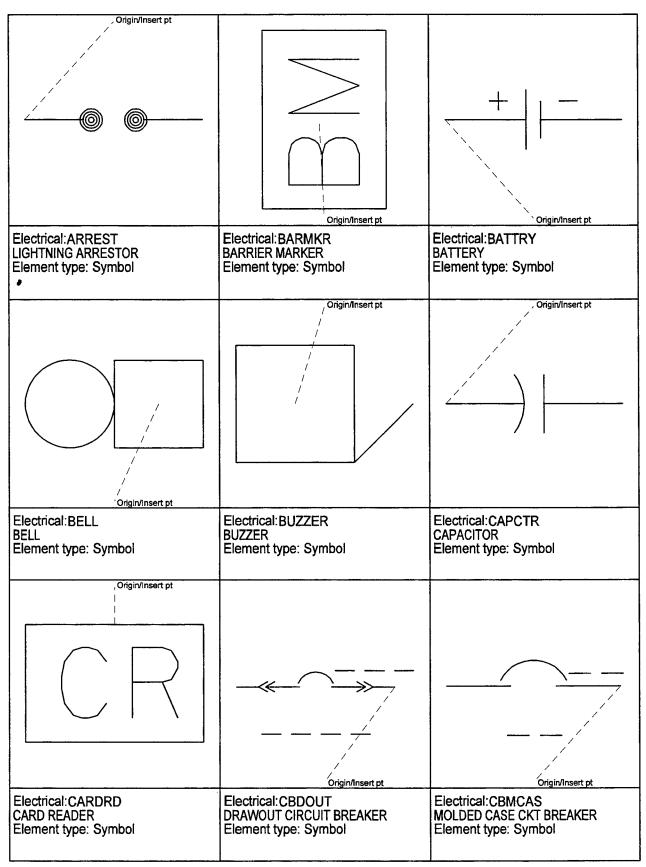
ВВВВВ	—— С Т V ——	—— C ——
Electrical:BUSWAY BUSWAY Element type: Line	Electrical:CABLTV CABLE TV Element type: Line	Electrical:COMARN NEW COMMUNCATION AERIAL Element type: Line
—— C <sub>×</sub>	C	——————————————————————————————————————
Electrical:COMARX EXIST COMMUNCATION AERIAL Element type: Line	Electrical: COMUGN NEW COMMUNCATION UNDERG Element type: Line	Electrical:COMUGX EXIST COMMUNCATION UNDERG Element type: Line
	TTTT	
Electrical:CONDFL FLEXIBLE CONDUIT Element type: Line	Electrical: DUCTTR TROLLEY DUCT Element type: Line	Electrical:EPARN NEW ELEC AERIAL PRIMARY Element type: Line

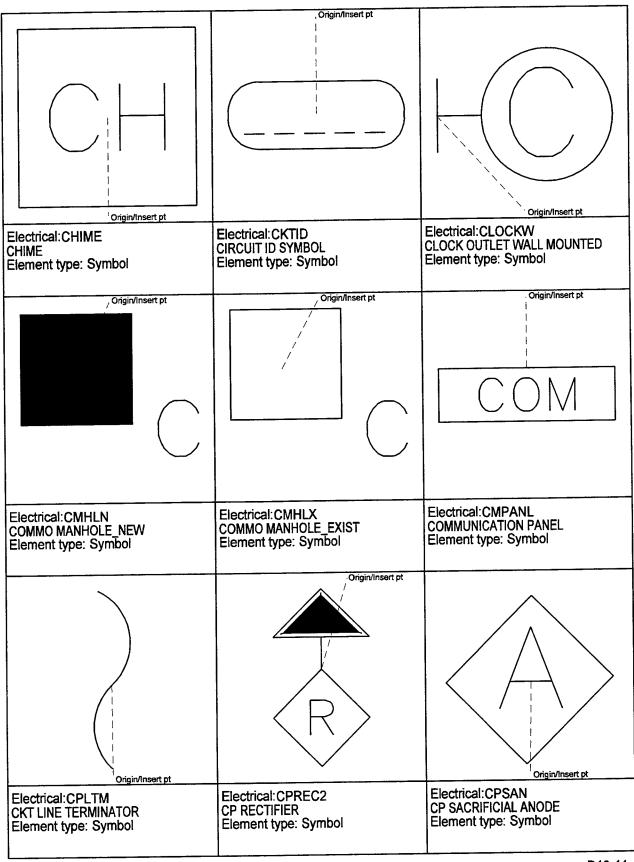
——E <sub>×</sub>	——E <u>u</u>	——E <u>x</u>
Electrical:EPARX EXIST ELEC AERIAL PRIMARY Element type: Line	Electrical: EPUGN NEW ELEC UNDERG PRIMARY Element type: Line	Electrical:EPUGX EXIST ELEC UNDERG PRIMARY Element type: Line
E	E <sub>x</sub>	<u>E</u> u
Electrical:ESARN NEW ELEC AERIAL SEC Element type: Line	Electrical: ESARX EXIST ELEC AERIAL SEC Element type: Line	Electrical:ESUGN NEW ELEC UNDERG SEC Element type: Line
E <u>\( \)</u>		X
Electrical:ESUGX EXIST ELEC UNDERG SEC Element type: Line	Electrical:EUDUCN NEW UNDERGROUND DUCT BANK Element type: Line	Electrical:EUDUCX EXIST UNDERGROUND DUCT BANK Element type: Line

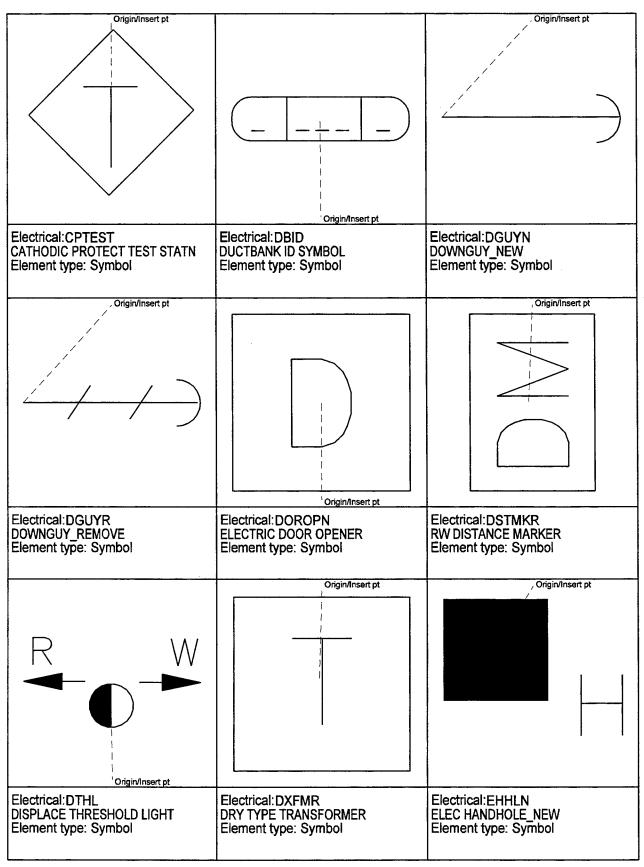
——— F O ———	C C C C		
Electrical:FIBOPT FIBER OPTICS LINE Element type: Line	Electrical: LADDER CABLE LADDER Element type: Line	Electrical:WIREWY WIREWAY Element type: Line	

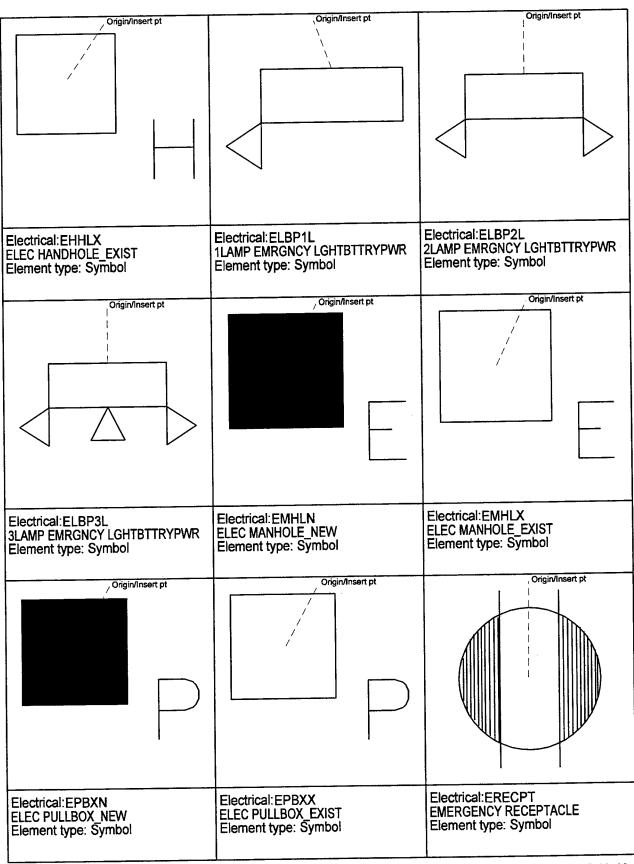
## 13 Electrical Symbols Library

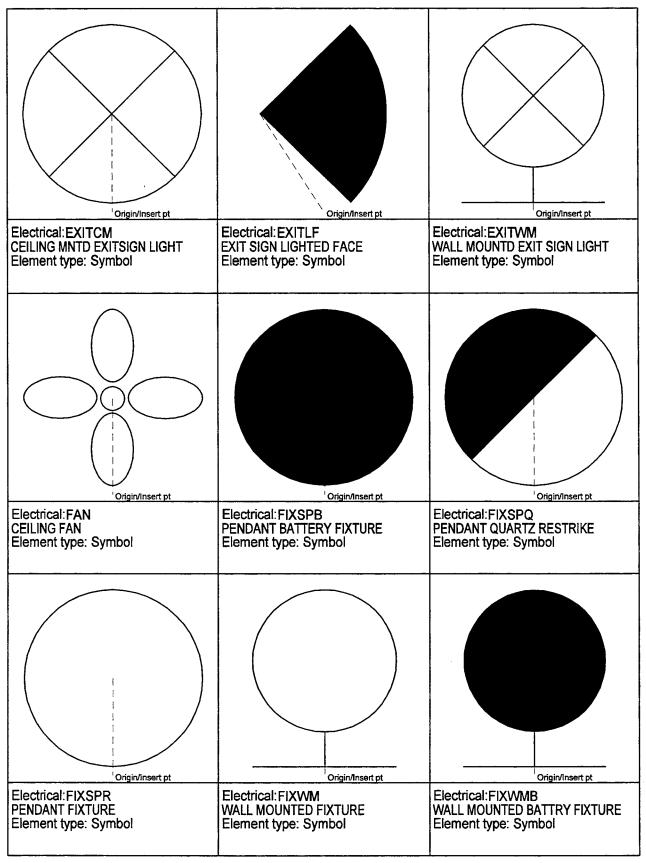


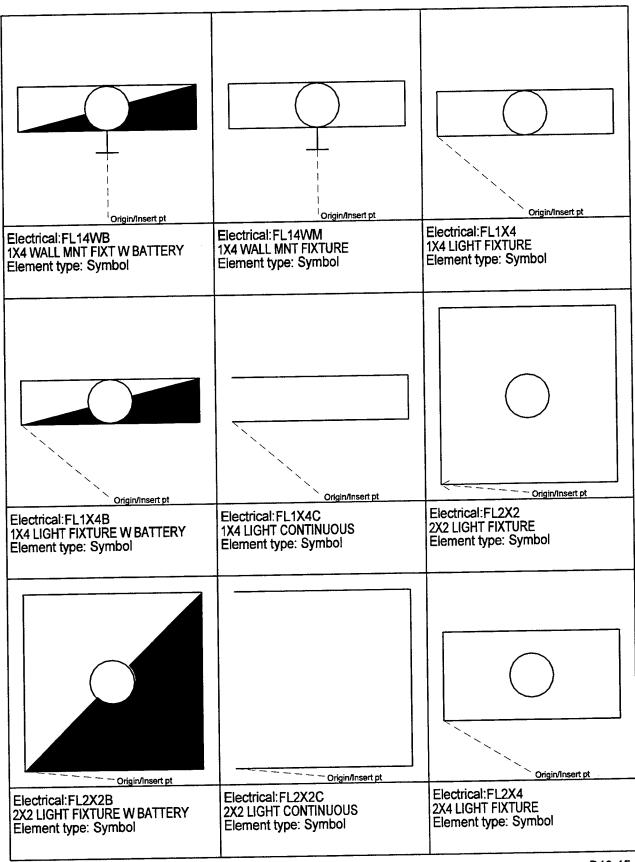


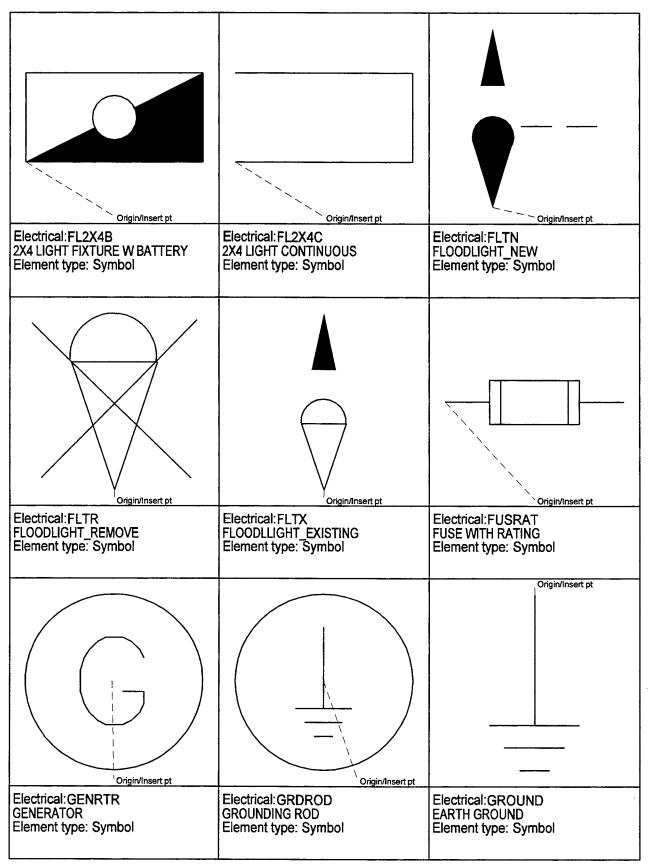




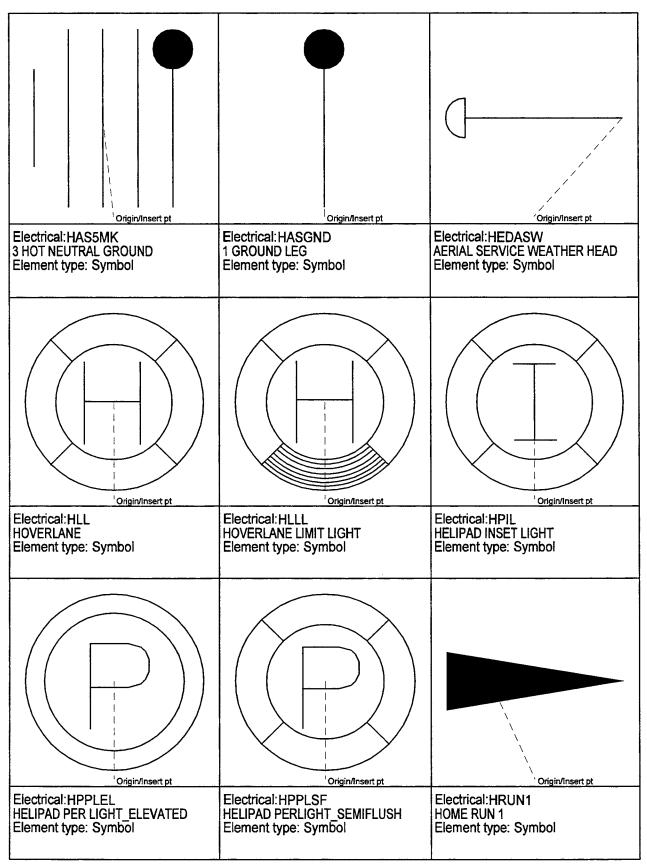


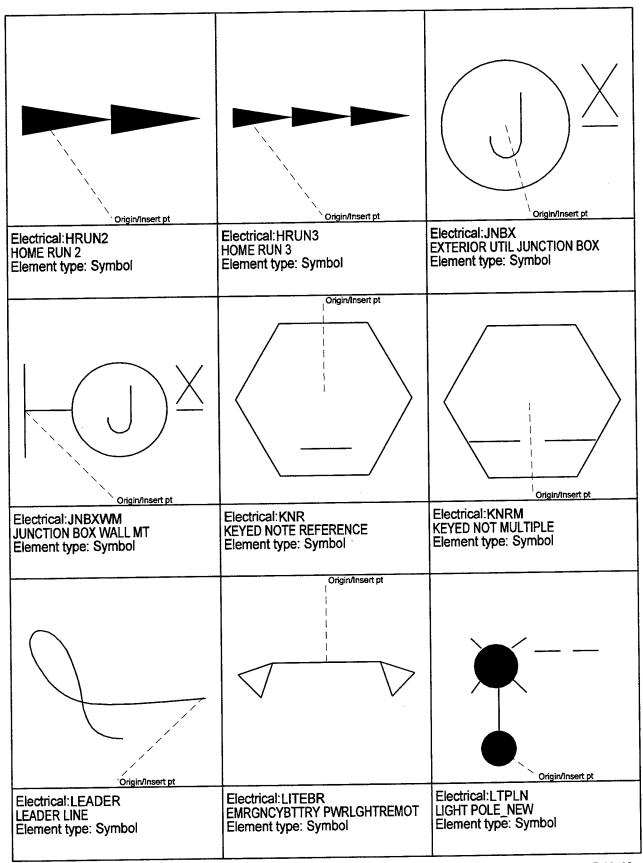


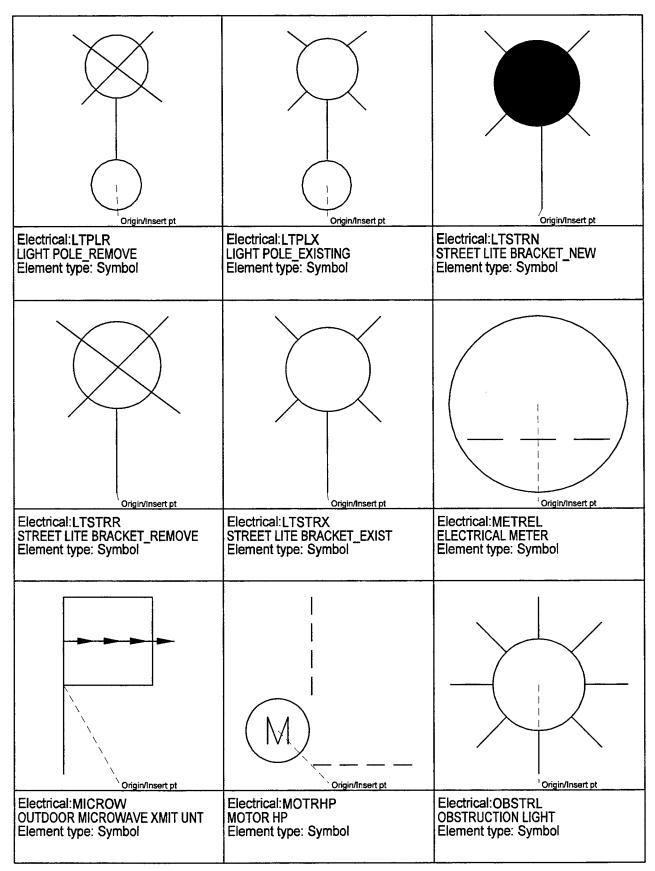


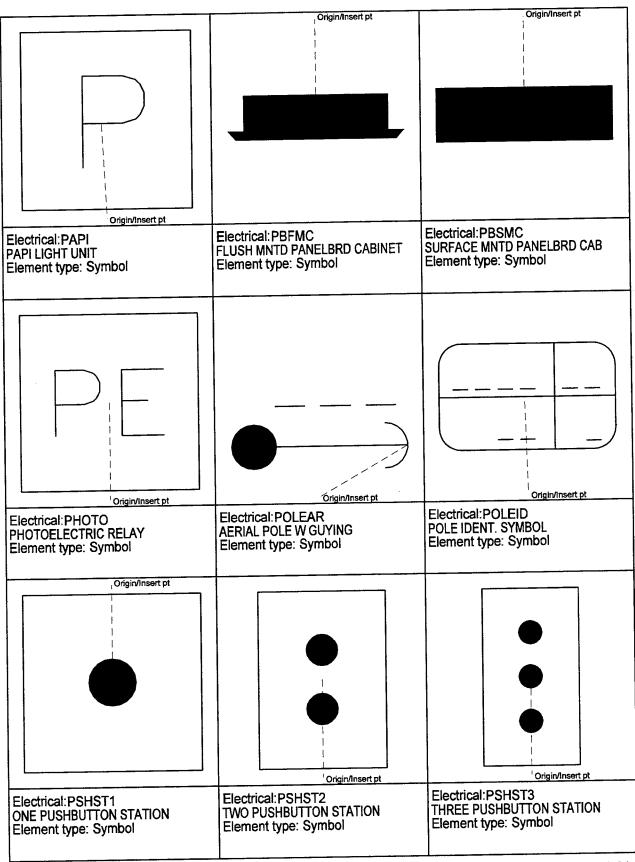


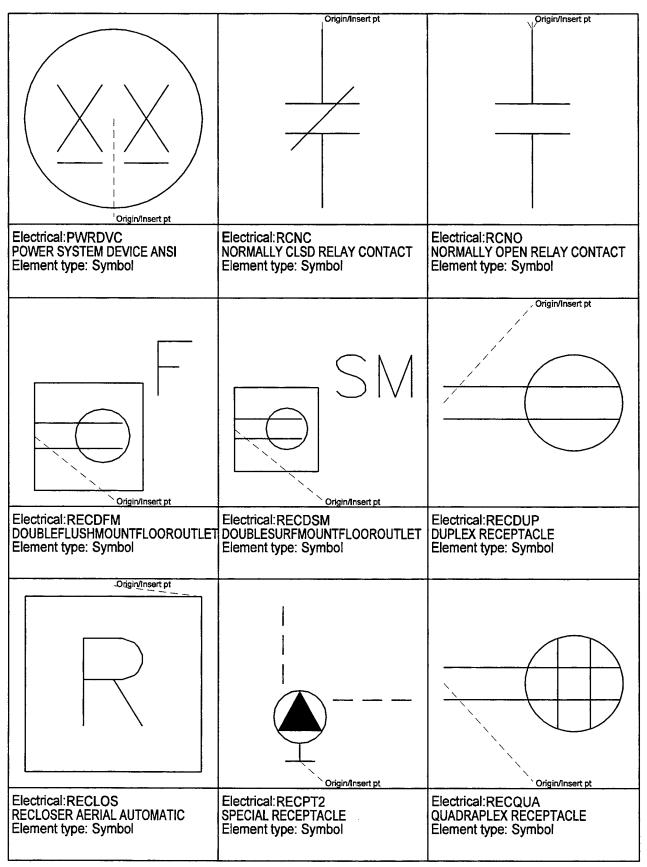
		, Origin/Insert pt		
· /   	Origin/Insert pt  /  /  /  /  /  /  /  /  /  /  /  /  /			
Electrical:HAS1H 1 HOT LEG Element type: Symbol	1 NEUTRAL LEG	Electrical:HAS1S 1 SWITCH LEG Element type: Symbol		
. Origin/Insert pt	Origin/Insert pt	Origin/Insert pt		
Electrical:HAS2H 2 HOT LEGS Element type: Symbol	Electrical: HAS2S 2 SWTCH LEGS Element type: Symbol	Electrical:HAS3HN 3 HOT 1 NEUT LEGS Element type: Symbol		
Origin/Insert pt	Origin/Insert pt	, Origin/Insert pt		
Electrical:HAS3MK HOT NEUTRAL GROUND Element type: Symbol	Electrical:HAS3S 3 SMTCH LEG Element type: Symbol	Electrical:HAS4MK 2 HOT NEUTRAL GROUND Element type: Symbol		

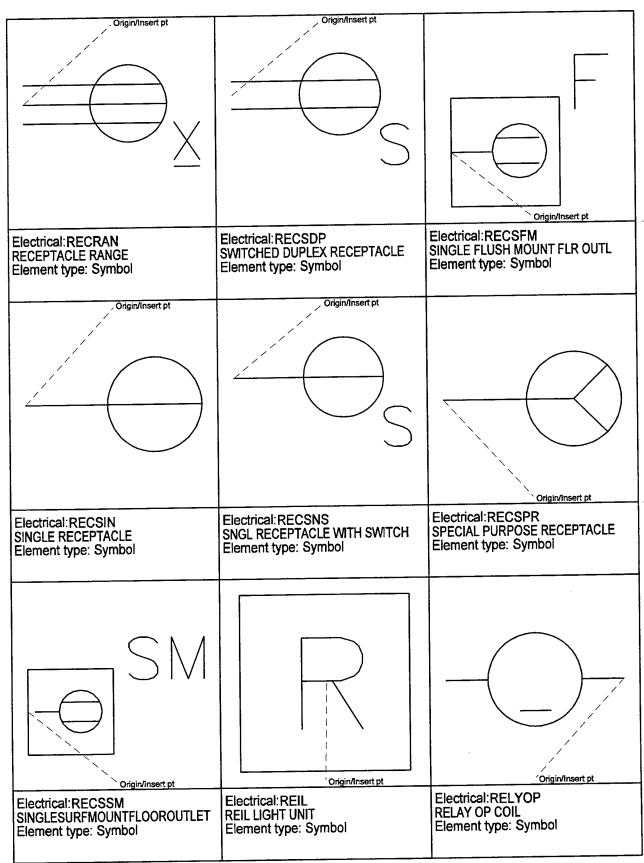


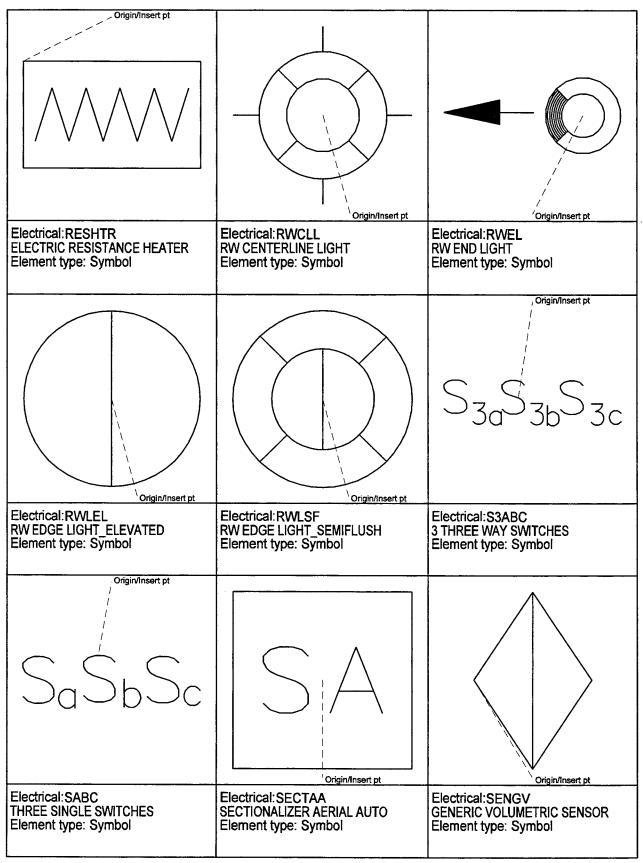


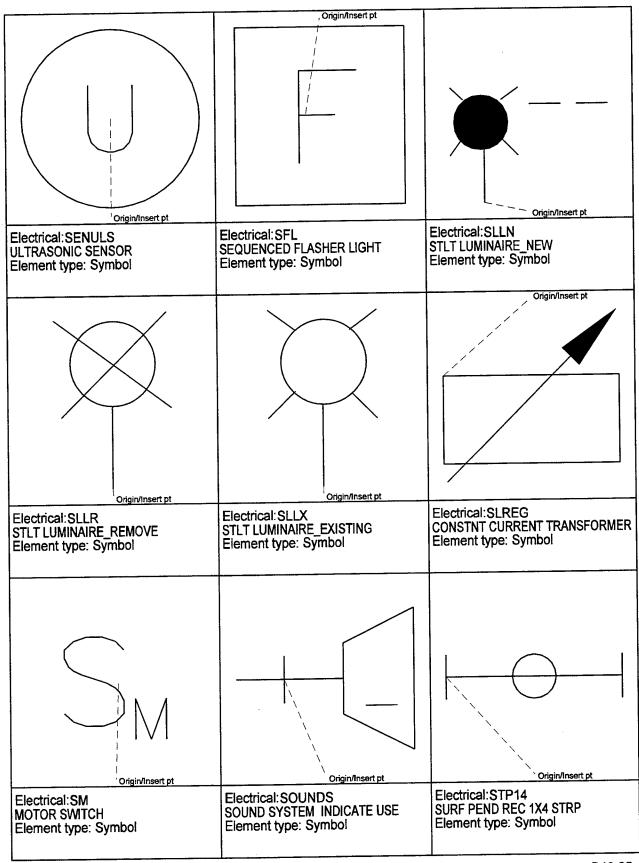


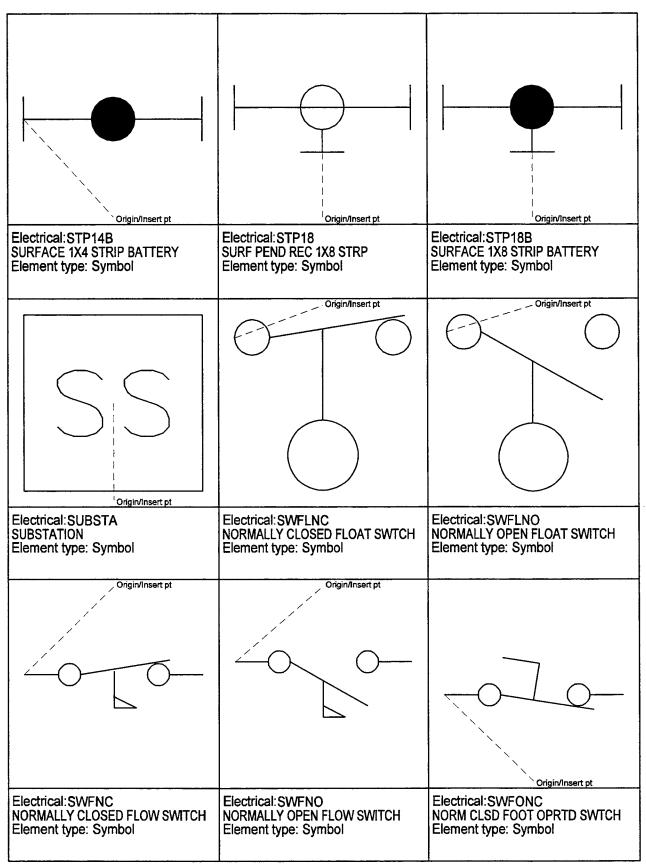


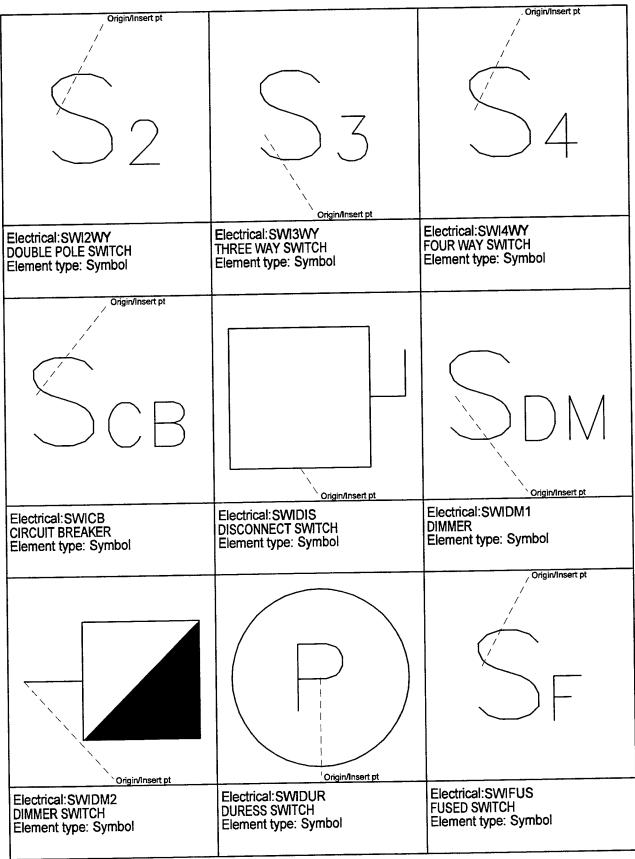


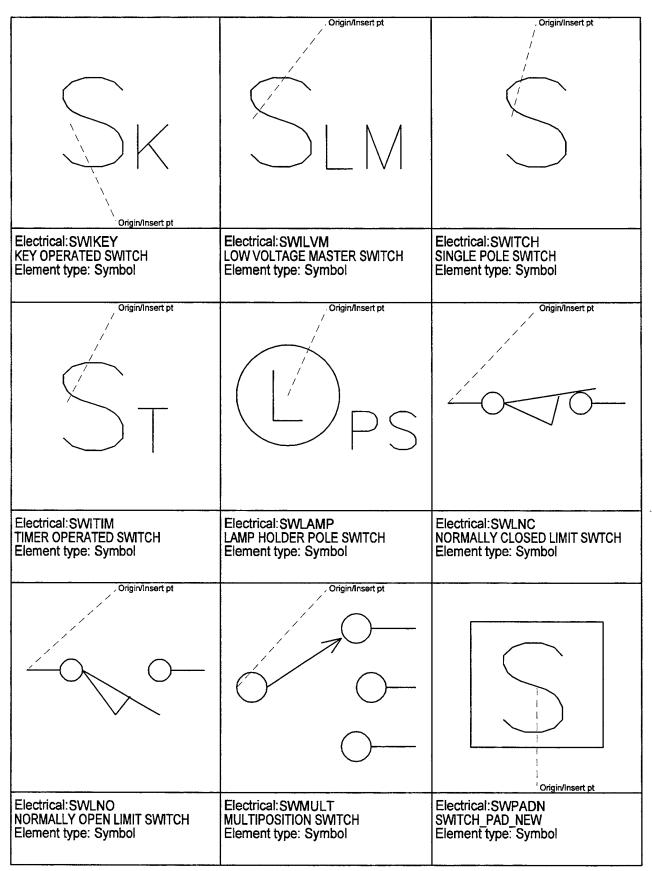


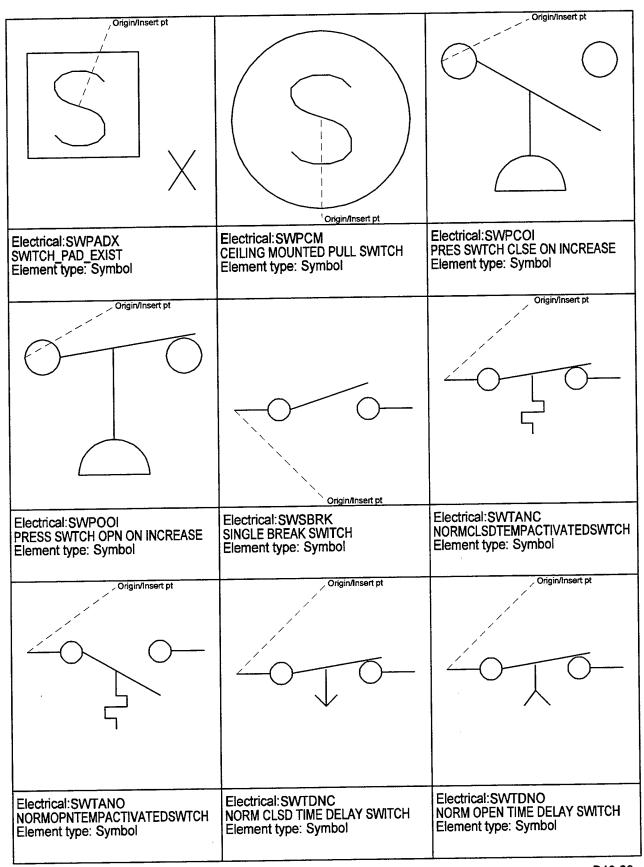


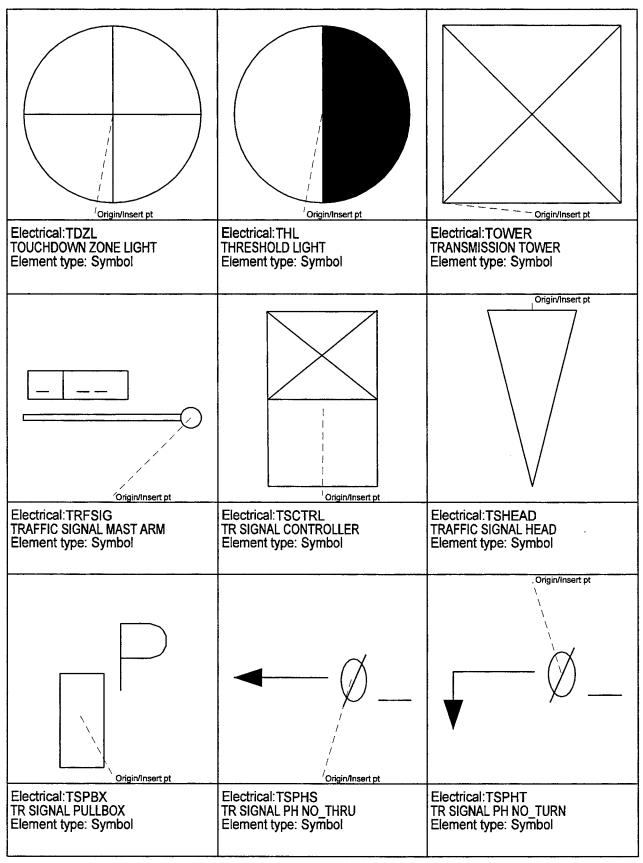


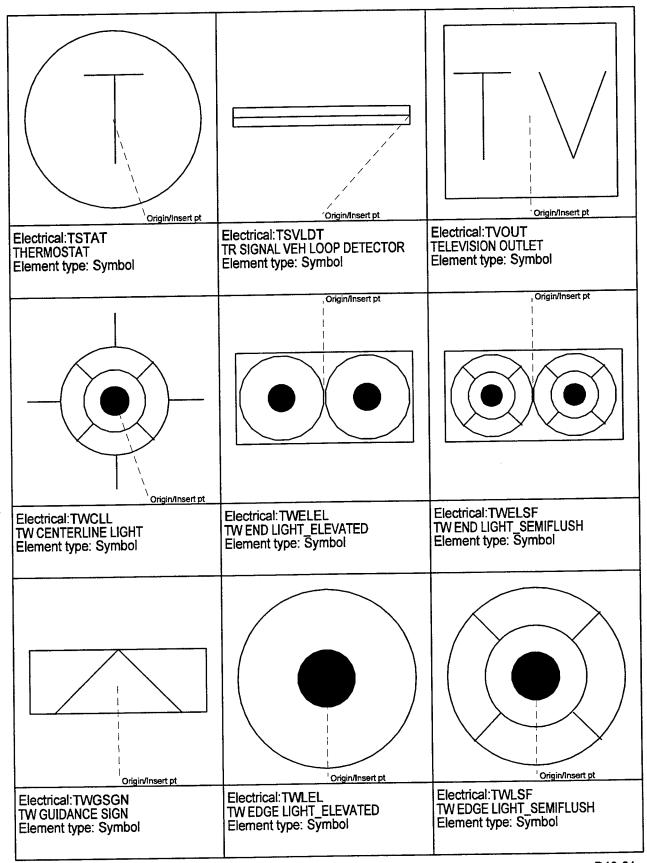


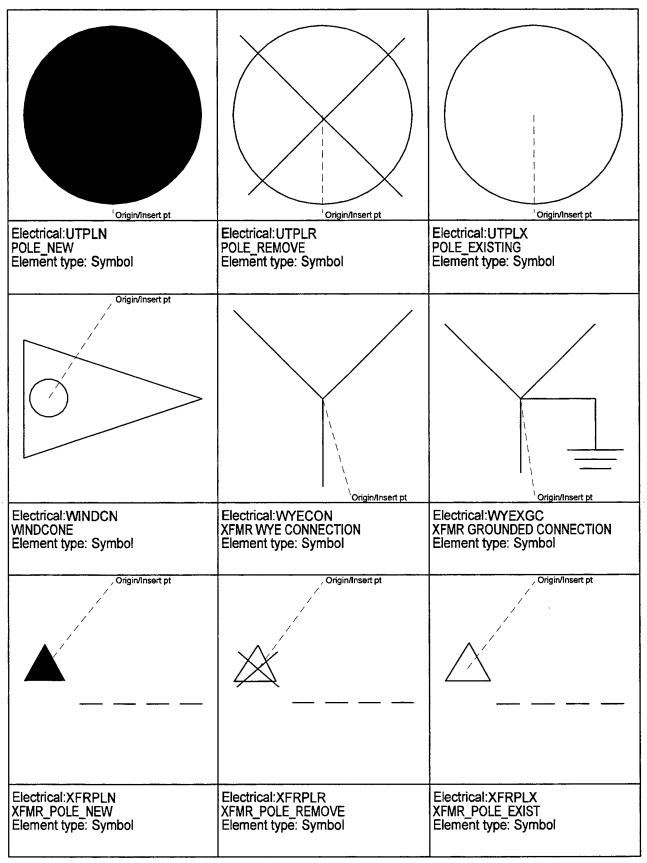










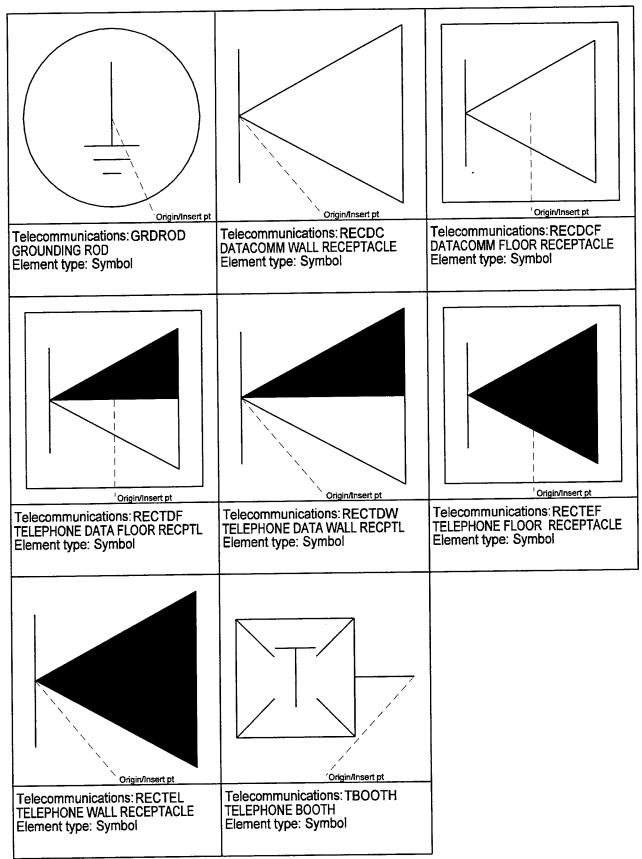


Origin/Insert pt	Origin/Insert pt	, Origin/Insert pt
Electrical:XFRPMN XFMR_PAD_NEW Element type: Symbol	Electrical:XFRPMR XFRM_PAD_REMOVE Element type: Symbol	Electrical:XFRPMX XFMR_PAD_EXIST Element type: Symbol

## **14 Telecommunications Lines Library**

——— F O ———	W   W   W   W
Telecommunications: FIBOPT FIBER OPTICS LINE Element type: Line	Telecommunications: WIREWY WIREWAY Element type: Line

## **14 Telecommunications Symbols Library**



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